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INFORMATION FOR STANDARDIZED RECIPES

Standardized recipes are a necessity for a well-run food service operation. All of the recipes have been developed, tested and standardized for product quality, consistency and yield. Recipes are the most effective management tool for guiding the requisitioning of supplies and controlling breakouts and inventory. The U. S. Dietary Guidelines were among the many considerations in both the selection and development of the recipes included in the file. Many of the recipes have been modified to reduce fat, salt and calories. For new and experienced cooks, consistent use of standardized recipes is essential for quality and economy. The Armed Forces Recipe Service contains over 1500 tested recipes yielding 100 portions printed on 5- by 8-inch cards. It also contains:

- (1) Guideline cards with general products and preparation information.
- (2) Color photographs
- (3) "How-to-do-it" drawings

Menu planners should use them when planning menus. Use of the Armed Forced Recipe Service allows the menu planner to determine the workload of food service personnel, equipment usage, food items to be requisitioned, storage space requirements, cost records, and acceptability of individual recipes.

Yield is the quantity of cooked product a recipe produces. The yield for each recipe in the Armed Forces Recipe is generally given as 100 portions and in some recipes in count or volume, e.g., 2 pans, 8 loaves, 6 1/2 gallons. Portion size is key to determining the quantity of food to be prepared. Many recipes also specify the weight per portion. For example, 3/4 cup (6 1/2 ounces) Beef Stroganoff.

Ingredients Column – Ingredients are listed in the order used. The specific form or variety of each ingredient is indicated.

Alternative Ingredients – These are sometimes given for use in place of a similar ingredient in the recipe, for example, salad oil, olive oil or melted shortening. If the alternative ingredient is a different form that requires a significant change in weight or measure, the information is contained in the Notes Section. For example, dehydrated onions may be used for chopped dry onions.

Optional Ingredients – These may be added to enhance the flavor or acceptability of the recipe. These ingredients are immediately followed by the word “optional;” for example, thyme (optional). Optional ingredients, if omitted, will not affect the quality of the recipe.

Measure, Weights & Issue Columns – Measures and Weights are the amount of each ingredient needed for 100 portions. For all recipes in the 1999 update, the amount listed in the weights and measures column is the E. P. (edible portion) amount. The column entitled “Issue” represents the A. P. (as purchased) quantity required.

For all recipes prior to the 1999 update the weight column represents the E. P. weight **WITH THE EXCEPTION** of canned foods such as fruits and vegetables. For **DRAINED CANNED FOODS** the weights represent the A. P. (not drained) weight and the volume is E. P. (drained).

A. GENERAL INFORMATION No. 1 (2)

Method Column describes how the ingredients are to be combined and cooked. For example, the method will describe the order in which to sift dry ingredients, to thicken a sauce, or to fold in beaten egg whites. The method contains directions for the most efficient order of work, eliminating unnecessary tools and equipment and unnecessary steps in preparation.

Variations – A variation is a recipe which has a slightly different way of preparing the basic recipe. It may call for replacing, adding to, or deleting ingredients. In addition, a variation may change the preparation method or cooking time in the basic recipe.

RECIPE ABBREVIATIONS

tsp	teaspoon	gal	gallon	pg	package	cn	can
tbsp	tablespoon	oz	ounce	jr	jar	A.P.	As Purchased
pt	pint	lb	pound	qt	quart	E.P.	Edible Portion
° F.	degrees Fahrenheit						

INFORMATION FOR STANDARDIZED RECIPES

RECIPE CONVERSION

Since few dining facilities serve exactly 100 persons, and, in some instances, the acceptable size portion may be smaller or larger, it is often necessary to reduce or increase a recipe. You may adjust the recipe to yield the number of portions needed, or to use the amount of ingredients available, or to produce a specific number of smaller portions. You may pencil in your computations in the blank column on the recipe card.

In the Weights Column on each recipe card, the quantities of items needed are listed as ____ lb, ____ oz, or ____ lb ____ oz. When increasing or decreasing a recipe, the division or multiplication of pounds and ounces is simplified when decimals are used.

1. To convert the quantities to decimals, use this table:

Weight in Ounces	Decimal of Pound	Weight in Ounces	Decimal of Pound
1.....	.06	9.....	.56
2.....	.13	10.....	.63
3.....	.19	11.....	.69
4 (1/4 lb).....	.25	12 (3/4 lb).....	.75
5.....	.31	13.....	.81
6.....	.38	14.....	.88
7.....	.44	15.....	.94
8 (1/2 lb).....	.50	16 (1 lb).....	1.00

For example: 1 lb 4 oz is converted to 1.25 lb; 2 lb 10 oz is converted to 2.63 lb.

2. To adjust the recipe to yield a specific number of portions:

First-- Obtain a working factor by dividing the number of portions needed by 100. For example:
 $348 \text{ (portions needed)} \div 100 = 3.48 \text{ (Working Factor)}$

Then-- Multiply the quantity of each ingredient by the working factor. For example:
 $1.25 \text{ lb (recipe)} \times 3.48 \text{ (Working Factor)} = 4.35 \text{ lb (quantity needed)}$.
 The part of the pound is converted to ounces by multiplying the decimal by 16. For example:
 $.35 \text{ lb} \times 16 \text{ ounces} = 5.60 \text{ ounces}$.

After the part of the pound has been converted to ounces, use the following scale to "round off":

.00 to .12	= 0	.63 to .87	= $\frac{3}{4}$ ounce
.13 to .37	= $\frac{1}{4}$ ounce	.88 to .99	= 1 ounce
.38 to .62	= $\frac{1}{2}$ ounce		

Thus 5.60 ounces will be "rounded off" to $5\frac{1}{2}$ ounces, and 4 lb $5\frac{1}{2}$ ounces will be the quantity needed (equal to 4.35 lb).

(CONTINUED)

INFORMATION FOR STANDARDIZED RECIPES

RECIPE CONVERSION

3. To adjust the recipe for volume:

First-- Obtain a working factor by dividing the number of portions needed by 100 as shown in Step 2 of A.1, Recipe Conversion..

$$\begin{array}{r} 3.33 \\ 100 \overline{) 333} \end{array}$$

Then-- Multiply the quantity of each ingredient by the working factor. You will round off to the nearest $\frac{1}{4}$ teaspoon. For example, the recipe calls for 6 gallons of water per 100 portions. Portions to prepare are 333.

$$333 \div 100 = 3.33 \text{ Working Factor (W/F)}$$

- | | | | | | |
|---|---|-------------------|---------------------------------------|---|------------|
| 1. W/F \times No. of gallons | = | gallon | 3.33 W/F \times 6 | = | 19.98 GL |
| 2. Decimal (of gal) \times 4 | = | quart (QT) | .98 GL \times 4 | = | 3.92 QT |
| 3. Decimal (of quart) \times 2 | = | pint (PT) | .92 QT \times 2 | = | 1.84 PT |
| 4. Decimal (of pint) \times 2 | = | cup (C) | .84 PT \times 2 | = | 1.68 C |
| 5. Decimal (of tbsp) \times 16 | = | tablespoon (TBSP) | .68 C \times 16 | = | 10.88 TBSP |
| 6. Decimal (of tbsp) \times 3 | = | teaspoon (TSP) | .88 TBSP \times 3 | = | 2.64 TSP |
| 7. Round off decimal portion
(see paragraph 2) | | | .64 TSP is equal to $\frac{3}{4}$ TSP | | |

The amount of water needed for 333 portions is: 19 GL, 3 QT, 1 PT, 1 C, 10 TBSP and $2\frac{3}{4}$ TSP.

NOTE: 4 QT = 1 GL 2 C = 1 PT 3 TSP = 1 TBSP
 2 PT = 1 QT 16 TBSP = 1 C

4. To adjust the recipe on the basis of a quantity of an ingredient to be used:

First-- Obtain a Working Factor by dividing the pounds you have to use by the pounds required to yield 100 portions.

For example:

$$102 \text{ lb} \div 30 \text{ (lb per 100 servings)} = 3.40 \text{ (Working Factor)}$$

Then-- Multiply the quantity of each ingredient in the recipe by the Working Factor.

5. To adjust the recipe to yield a specific number of portions of a specific size:

First-- Divide the desired portion size by the standard portion of the recipe.

$$3 \text{ oz (desired size)} \div 4 \text{ oz (standard portion)} = .75$$

$$348 \text{ (servings needed)} \times .75 = 261$$

$$261 \div 100 = 2.61 \text{ (Working Factor)}$$

Then-- Multiply the quantity of each ingredient in the recipe by the Working Factor.

DEFINITION OF TERMS USED IN FOOD PREPARATION

Bake	To cook by dry heat in an oven, either covered or uncovered .
Barbecue	To roast or cook slowly, basting with a highly seasoned sauce .
Baste	To moisten food with liquid or melted fat during cooking to prevent drying of the surface and to add flavor .
Batch Preparation	A predetermined quantity or number of servings of food that is to be prepared at selected time intervals in progressive cookery for a given meal period to ensure fresh, high quality cooked food to customers.
Beat	To make a mixture smooth by using a fast regular circular and lifting motion which incorporates air into a product.
Blanch	To partially cook in deep fat, boiling water or steam.
Blend	To mix two or more ingredients thoroughly.
Boil	To cook in liquid at boiling point (212°F.) in which bubbles rise and break at the surface.
Braise	To brown in small amount of fat, then to cook slowly in small amount of liquid below the boiling point in a covered utensil.
Bread	To cover with crumbs or other suitable dry coating ingredient; or to dredge in a mixture of flour seasonings, and/or condiments, dip in a mixture of milk and slightly beaten eggs and then dredge in crumbs.
Broil	To cook by direct exposure to heat.
Brown	To produce a brown color on the surface of food by subjecting it to heat.

REVISION**(OVER)**

Chop	To cut food into irregular small pieces.
Cream	To mix until smooth, so that the resulting mixture is softened and thoroughly blended.
Crimp	To pinch together in order to seal.
Cube	To cut any food into square-shaped pieces.
Dice	To cut into small cubes or pieces.
Dock	To punch a number of vertical impressions in a dough with a smooth round stick about the size of a pencil to allow for expansion and permit gases to escape during baking.
Dredge	To coat with crumbs, flour, sugar or corn meal.
Fermentation	The process by which yeast acts on the sugars and starches in the dough to produce carbon dioxide gas and alcohol, resulting in expansion of the dough. During this period, the dough doubles in bulk.
Flake	To break lightly into small pieces.
Fold	To blend two or more ingredients together with a cutting and folding motion.
Fry	To cook in hot fat.
Garnish	To decorate with small pieces of colorful food.

(CONTINUED)

DEFINITION OF TERMS USED IN FOOD PREPARATION

Glaze	A glossy coat given to foods, as by covering with a sauce or by adding a sugary syrup, icing, etc.
Gluten	A tough elastic protein that gives dough its strength and ability to retain gas.
Grate	To rub food on a grater and thus break it into tiny pieces.
Grill	To cook, uncovered, on a griddle, removing grease as it accumulates. No liquid is added.
Knead	To work dough by folding and pressing firmly with palms of hands, turning between foldings.
Marinade	A preparation containing spices, condiments, vegetables, and aromatic herbs, and a liquid (acid or oil or combination of these) in which a food is placed for a period of time to enhance its flavor or to increase its tenderness.
Marinate	To allow to stand in a marinade to add flavor or tenderness.
Mince	To cut or chop into very small pieces (finer than chopped).
Panbroil	To cook uncovered in a hot frying pan, pouring off fat as it accumulates.
Pare	To cut away outer covering.
Paste	See Guidelines for Preparing Sauces and Gravies (Recipe No. O-G-1) for definition.
Peel	To remove the outer layer of skin of a vegetable or fruit, etc.

REVISION**(OVER)**

A. GENERAL INFORMATION No. 2(2)

Progressive Cookery.	The continuous preparation of food in successive steps during the entire serving period (i.e., continuous preparation of vegetables, cook-to-order hamburgers, steaks, fried eggs, pancakes). This procedure ensures fresh, high quality cooked food to customers on a continuous basis. See Batch Preparation.
Proof.	To allow shaped and panned yeast products like bread and rolls to double in size under controlled atmospheric conditions.
Reconstitute.	To restore to liquid state by adding water. Also to reheat frozen prepared foods.
Rehydrate.	To soak, cook, or use other procedures with dehydrated foods to restore water lost during drying.
Roast.	To cook by dry heat; usually uncovered, in an oven.
Roux	See Guidelines for Preparing Sauces and Gravies (Recipe No. O-G-1) for definition.
Sauté.	To brown or cook in small amount of fat.
Scald.	To heat a liquid over hot water or direct heat to a temperature just below the boiling point.
Scale.	To measure a portion of food by weighing.
Scant.	Not quite up to stated measure.
Score.	To make shallow cuts across top of a food item.
Seasoned Flour or Crumbs.	A mixture of flour or crumbs with seasonings.

(CONTINUED)

DEFINITION OF TERMS USED IN FOOD PREPARATION

Shred	To cut or tear into thin strips or pieces using a knife or a shredder attachment.
Sift	To put dry ingredients through a sieve.
Simmer	To cook gently in a liquid just below the boiling point (190°F.-210°F.); bubbles will form slowly and break at the surface.
Steam	To cook over or surrounded by steam.
Stew	To simmer in enough liquid to cover solid foods.
Stir	To mix two or more ingredients with a circular motion.
Temper	To remove from freezer and place under refrigeration for a period of time sufficient to facilitate separation and handling of frozen product. Internal temperature of the food should be approximately 26°F. to 28°F.
Thaw	To remove from freezer and place under refrigeration until thawed. Internal temperature should be above 30°F.
(a) Completely Thaw	To remove from freezer and place under refrigeration approximately 48 hours before intended use.
(b) Partially Thaw	To remove from freezer and place under refrigeration approximately 18 hours before intended use.
Toss	To mix ingredients lightly.
Wash	The liquid brushed on the surface of unbaked pies or turnovers to give a golden brown color to the crust or on the surface of proofed breads and rolls before baking and on baked bread and rolls to give a shine to the crust.
Whip	To beat rapidly with wire whip to increase volume by incorporating air.

REVISION

MEASURING PROCEDURE

Weights are more accurate than measures and recipe ingredients should be weighed whenever possible. If scales for weighing are not available, follow the rules for measuring to ensure accurate measures.

Flour, general purpose or bread.	When specified, sift before measuring. Place flour lightly in measuring utensil. Level with straight edge of knife. DO NOT shake utensil; DO NOT pack flour.
Sugar, granulated	Fill measuring utensil. Level with straight edge of knife. If sugar is lumpy, sift before measuring.
Sugar, brown.	Pack lightly into measuring utensil. If sugar is lumpy, roll with a rolling pin to break up any lumps before measuring.
Sugar, brown, packed.	Press sugar firmly into measuring utensil.
Milk, nonfat, dry.	Stir lightly with a fork or spoon. Place lightly in measuring utensil. DO NOT shake utensil. Level with straight edge of knife.
Baking powder, herbs and spices	Stir lightly with fork or spoon. Dip dry measuring spoon into container, bringing it up heaping full. Level with straight edge of knife.
Solid fats.	Press fat firmly into measuring utensil. Level with straight edge of knife.

REVISION

NOTE:

1. Use ladles to serve individual portions of liquid or semiliquid foods.
2. Scoop number indicates the number of portions per quart.

REVISION

TABLE OF WEIGHTS AND MEASURES FOR CAN SIZES

CAN SIZE	AVERAGE NET WEIGHT OR FLUID MEASURE PER CAN (SEE NOTE)	AVERAGE CUPS PER CAN	APPROX. CANS PER CASE	NO. CANS EQUIV. NO. 10 CN
No. 10	6 lb 8 oz	12 $\frac{1}{2}$	6	1
No. 3 cyl	3 lb 2 oz (46 fl oz)	5 $\frac{3}{4}$	12	2
No. 3 (vacuum)	1 lb 7 oz	2 $\frac{3}{4}$	24	4 $\frac{1}{2}$
No. 2 $\frac{1}{2}$	1 lb 12 oz	3 $\frac{1}{2}$	24	4
No. 2	1 lb 4 oz	2 $\frac{1}{3}$	24	5
No. 303	1 lb	2	24	7
No. 300	14 oz	1 $\frac{3}{4}$	24	7
No. 2 (vacuum)	12 oz	1 $\frac{1}{2}$	24	8
No. 1 picnic	11 oz	1 $\frac{1}{4}$	48	10

NOTE: The net weight on can or jar labels differs among foods due to different densities of foods. For example: A No. 10 cn contains 6 lb 3 oz sauerkraut or 7 lb 5 oz cranberry sauce. Meats, fish, and shellfish are known and sold by weight of contents of can. For net weight listings of specific foods, check the conversion factor column in the Federal Supply Catalog, Group 89, Subsistence.

REVISION

TABLE OF CONVERSION FACTORS FOR CONVERTING "EDIBLE PORTION" WEIGHTS OF FOODS TO "AS PURCHASED" WEIGHTS OF FOODS

VEGETABLES

The E.P. (Edible Portion) weight of all vegetables, unless otherwise specified, is used in the recipes. This table lists raw items and easy, one-step conversion factors to determine how much A.P. (As Purchased) weight of vegetables to process.

To use these factors, multiply the E.P. quantity of ingredients listed in the recipe by the appropriate conversion factor given below to arrive at the quantity of the item (A.P.) to process.

EXAMPLE: 3 lb sliced cucumbers (pared) E.P. (ingredient weight) \times 1.19 (conversion factor) = 3.57 lb (3 lb 9 oz) fresh cucumbers A.P. The E.P. quantity may be determined from an A.P. quantity by dividing the A.P. by the conversion factor as follows:

3.57 lb (3 lb 9 oz) fresh cucumbers A.P. \div 1.19 (conversion factor) = 3 lb cucumbers (pared) E.P.

	Conversion Factor E.P. to A.P.		Conversion Factor E.P. to A.P.
VEGETABLES, FRESH:		Cabbage (trimmed)	1.16
Alfalfa sprouts	1.00	Cabbage (trimmed and cored)	1.25
Asparagus (trimmed)	1.89	Carrots (peeled)	1.22
Beans, green, whole (trimmed)	1.14	Cauliflower (trimmed and cored)	1.20
Bean sprouts	1.00	Celery (trimmed)	1.37
Broccoli (trimmed)	1.64	Celery leaves	34.48
Broccoli, flowerets (trimmed)	2.20	Corn-on-Cob (husked and silked)	1.43
Brussels sprouts (trimmed)	1.11	Cucumbers (peeled and seeded)	1.67

Item	Conversion Factor E.P. to A.P.	Item	Conversion Factor E.P. to A.P.
Cucumbers (pared)	1.19	Pea pods, Chinese, snow (trimmed) . .	1.06
Cucumbers (unpared)	1.05	Peppers, sweet (stemmed, seeded, cored)	1.22
Eggplant (pared)	1.23	Peppers, sweet (stemmed, seeded, ends removed)	2.08
Eggplant (unpared)	1.03	Potatoes, white (pared)	1.23
Endive (trimmed)	1.11	Potatoes, sweet (pared)	1.25
Escarole (trimmed)	1.11	Radishes (trimmed)	1.09
Garlic, dry (peeled)	1.15	Romaine (trimmed)	1.06
Greens, collard (trimmed)	1.35	Rutabagas (pared)	1.18
Greens, kale (trimmed)	1.41	Spinach (trimmed)	1.09
Lettuce (trimmed and cored)	1.08	Squash, summer (trimmed & unpared)	1.05
Mushrooms, sliced (trimmed)	1.10	Squash, fall and winter:	
Mushrooms, whole (trimmed)	1.10	Acorn (seeded)	1.15
Onions, dry (peeled)	1.11	Butternut (pared and seeded)	1.19
Onions, green with tops (trimmed)	1.20	Hubbard (seeded)	1.12
Parsley (trimmed)	1.05	Tomatoes (stemmed)	1.02
Parsnips (pared)	1.18	Turnips (pared)	1.23

TABLE OF CONVERSION FACTORS FOR CONVERTING "EDIBLE PORTION" WEIGHTS OF FOODS TO "AS PURCHASED" WEIGHTS OF FOODS FRUITS

The E.P. (Edible Portion) weight of all fruits, unless otherwise specified, is used in the recipes. This table lists raw items and easy, one-step conversion factors to determine how much A.P. (As Purchased) weight of fruits to process.

To use these factors, multiply the E.P. quantity of ingredients listed in the recipe by the appropriate conversion factor given below to arrive at the quantity of the item A.P. to process.

EXAMPLE: 3 lb sweet cherries (stemmed and pitted) E.P. (ingredient weight) \times 1.19 (conversion factor) = 3.57 lb (3 lb 9 oz) fresh cherries A.P. The E.P. quantity may be determined from an A.P. quantity by dividing the A.P. by the conversion factor as follows: 3.57 lb (3 lb 9 oz) sweet cherries A.P. \div 1.19 (conversion factor) = 3 lb sweet cherries (stemmed and pitted) E.P.

Item	Conversion Factor E.P. to A.P.	Item	Conversion Factor E.P. to A.P.
FRUITS, FRESH:		Cantaloupe (pared and seeded). . . .	1.96
Apples (pared and cored).	1.28	Cantaloupe (unpared and seeded). . .	1.11
Apples (unpared and cored).	1.18	Casaba melon (pared and seeded). . .	1.67
Apricots (unpared and pitted). . . .	1.08	Casaba melon (unpared and seeded)	1.12
Avocados (pared and seeded).	1.45	Cherries, sweet (stemmed and pitted)	1.19
Bananas (peeled).	1.54	Cranberries (culled).	1.05

A. GENERAL INFORMATION No. 7

Item	Conversion Factor E.P. to A.P.	Item	Conversion Factor E.P. to A.P.
Grapefruit (segments only).	1.92	Oranges (peeled, seeded sections with membrane).	1.41
Grapefruit (peeled, seeded with membrane).	1.34	Papaya (pared and seeded).	1.49
Grapes (stemmed and seeded). . .	1.12	Peaches (pared and pitted).	1.32
Honeyball melon or Honeydew melon (pared and seeded). .	2.17	Peaches (unpared and pitted).	1.10
Honeyball melon or Honeydew melon (unpared and seeded). .	1.05	Pears (pared and cored).	1.28
Kiwi fruit, pared.	1.16	Pears (unpared and cored).	1.09
Lemons (juice only).	2.33	Persian melon (pared and seeded). . .	2.38
Limes (juice only).	2.13	Persian melon (unpared and seeded). .	1.05
Mangoes (pared and seeded). . .	1.45	Pineapple (pared and cored).	1.92
Nectarines (unpared and pitted)	1.10	Plums (pitted).	1.06
Oranges (juice only or sections without membrane).	2.00	Strawberries (capped and stemmed)	1.06
		Tangelos (sections).	1.35
		Tangerines (sections).	1.39
		Watermelons (pared and seeded). . . .	1.92

TABLE OF EGG EQUIVALENTS

FRESH WHOLE EGGS (SHELLED)			DEHYDRATED EGG MIX		
Medium Size	Weight	Volume	Weight	Volume (Approx.)	Water to be Added
1 egg	1.6 oz	3 tbsp	1/2 oz	2 tbsp	2 1/2 tbsp
2 eggs	3.2 oz	6 tbsp	1 oz	1/4 cup	5 tbsp
10 eggs*	1 lb	1 7/8 cups	5 oz	1 1/4 cups	1 1/2 cups
12 eggs	1 lb 3.2 oz	2 1/4 cups	6 oz	1 1/2 cups	scant-2 cups
20 eggs	2 lb	3 3/4 cups	10 oz	2 1/2 cups	3 cups
40 eggs	4 lb	7 1/2 cups	20 oz	1 1/4 qt (1-No. 3 cyl cn)	1 1/2 qt

*10 large eggs = 1 lb 2 oz

- NOTE: 1. *Frozen Whole Eggs* and *Frozen Egg Whites* may be used in equivalent weights to shelled fresh whole eggs.
2. *Dehydrated Egg Mix* may be used in most recipes requiring whole eggs as shown in the table above. DO NOT USE RECONSTITUTED EGGS IN UNCOOKED SALAD DRESSINGS OR OTHER RECIPES WHICH DO NOT REQUIRE COOKING. RECONSTITUTED DEHYDRATED EGG MIX SHOULD BE USED WITHIN ONE HOUR UNLESS REFRIGERATED. DO NOT HOLD OVERNIGHT. For greater accuracy, weigh dehydrated egg mix. Use 1 part egg mix with 2 1/2 parts water by weight. (Egg Mix reconstitutes more easily in lukewarm water; however, cool water may be used.) If weighing is not possible, use standardized measuring utensils and pack egg mix.

REVISION

(OVER)

3. *Reconstitution Methods for Dehydrated Egg Mix*

- a. *Method 1.* Place dehydrated egg mix in bowl; stir with a wire whip; add $\frac{1}{2}$ of the water; whip until a smooth paste is formed; add remaining water; whip until mixture is blended.
- b. *Method 2.* Add dehydrated egg mix to water; stir to moisten; let stand 5 minutes; whip until smooth.

For Baked Products

- a. *Method 1.* Reconstitute dehydrated egg mix; substitute for eggs in recipe.
- b. *Method 2.* Sift dehydrated egg mix with dry ingredients; **add water in step in Method column where whole eggs are incorporated.**

For Batter Dips. Dehydrated egg mix may be reconstituted and used. See Tempura Batter, Recipe No. D-38.

GUIDELINES FOR CONTAINER YIELDS FOR CANNED FRUITS

TYPE OF FRUIT	PORTION SIZE (Approximate)	CAN SIZE	NO. OF CANS FOR 100 PORTIONS
Applesauce.	1/2 cup	No. 303 cn No. 10 cn	25 4
Applesauce, Instant.	1/2 cup	No. 2 1/2 cn	4
Apricots, halved.	3 to 5 halves	No. 2 1/2 cn No. 10 cn	16 4
Blueberries.	1/2 cup	No. 10 cn	4
Cherries, sweet, dark or light, pitted or unpitted	1/2 cup	No. 303 cn No. 10 cn	25 4
Cranberry Sauce, strained.	1/4 cup	No. 303 or 300 cn	13
Cranberry Sauce, whole.	1/4 cup	No. 10 cn	2
Figs, Kadota.	3 to 4 figs	No. 303 cn	25
Fruit Cocktail.	1/2 cup	No. 2 1/2 cn No. 10 cn	16 4
Fruit Mix, chunks.	1/2 cup	No. 303 cn No. 10 cn	25 4
Grapefruit.	1/2 cup	No. 303 cn No. 3 cyl cn	25 8

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TYPE OF FRUIT	PORTION SIZE (Approximate)	CAN SIZE	NO. OF CANS FOR 100 PORTIONS
Peaches, halves.....	2 halves	No. 2 1/2 cn No. 10 cn	16 4
quarters or slices.	1/2 cup	No. 2 1/2 cn No. 10 cn	16 4
Pears, halves.....	2 halves	No. 2 1/2 cn No. 10 cn	16 4
quarters or slices.	1/2 cup	No. 2 1/2 cn No. 10 cn	16 4
Pineapple, chunks or tidbits.	1/2 cup	No. 2 cn No. 10 cn	20 4
slices.....	1 large or 2 small slices	No. 2 cn No. 10 cn	20 4
Plums, whole.....	2 to 3 plums	No. 2 1/2 cn No. 10 cn	16 4
Prunes, whole, unpitted.	3 prunes	No. 10 cn	12 1/5

NOTE: Other sizes of cans may be used. See Recipe No. A-5.

NONFAT DRY MILK RECONSTITUTION CHART FOR COOKING

Nonfat Dry Milk (Conventional)	+	Water	=	Fluid Skim Milk
1 ² / ₃ tbsp		1/2 cup		1/2 cup
3 tbsp		1 cup		1 cup
1 ² / ₃ oz (6 tbsp)		1 ⁷ / ₈ cups		2 cups
3 ¹ / ₄ oz (3/4 cup)		3 ³ / ₄ cups		1 qt
5 oz (1 ¹ / ₈ cups)		5 ³ / ₄ cups		1 ¹ / ₂ qt
6 ¹ / ₂ oz (1 ¹ / ₂ cups)		7 ¹ / ₂ cups		2 qt
8 oz (1 ⁷ / ₈ cups)		9 ¹ / ₂ cups		2 ¹ / ₂ qt
10 oz (2 ¹ / ₄ cups)		11 ¹ / ₂ cups		3 qt
11 ¹ / ₄ oz (2 ² / ₃ cups)		3 ¹ / ₃ qt		3 ¹ / ₂ qt
13 oz (3 cups)		3 ³ / ₄ qt		1 gal
1 lb 10 oz (1 ¹ / ₂ qt)		1 ⁷ / ₈ gal		2 gal
2 lb 7 oz (2 ¹ / ₄ qt)		2 ⁷ / ₈ gal		3 gal
4 lb 2 oz (3 ³ / ₄ qt)		4 ³ / ₄ gal		5 gal
5 lb 2 oz (4 ³ / ₄ qt)		6 gal		6 ¹ / ₄ gal

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- NOTE:**
1. Recipes in this file use nonfat dry milk (conventional). Other types of milk should not be used unless absolutely necessary.
 2. For best results, nonfat dry milk should be weighed instead of measured. Measures vary from one manufacturer to another. However, as a general rule, 1 ounce of nonfat dry milk will measure $3\frac{2}{3}$ tablespoons, and $4\frac{1}{2}$ ounces of nonfat dry milk will measure 1 cup.
 3. Dry milk must be reconstituted in clean containers using clean utensils and must be treated like fresh milk after it is reconstituted. It must be refrigerated and protected from contamination.
 4. Dry milk reconstitutes more easily in warm water. It should be stirred into the water with a circular motion using a whip or slotted spoon. It may also be reconstituted in a mixer if a large quantity is being prepared. However, it should be mixed at low speed to prevent excessive foaming.
 5. Instantized nonfat dry milk may be substituted on a pound for pound basis for the nonfat dry milk specified in any recipe. It should be weighed because the measures for instantized nonfat dry milk are different from measures for nonfat dry milk (conventional). Nonfat dry milk, instant settles. If instantized milk must be measured, follow directions on the container.
 6. If nonfat dry milk is to be used for a beverage, it should be weighed using 1 lb dry milk and $3\frac{3}{4}$ qt water per gallon. Chill thoroughly before serving. For 100 portions (8 oz), use 6 lb 4 oz nonfat dry milk and $23\frac{1}{2}$ qt water.

GUIDELINES FOR USE OF DEHYDRATED ONIONS, GREEN PEPPERS, AND PARSLEY ONIONS

Dehydrated, chopped and dehydrated compressed, chopped onions may be used in any recipe which specifies "onions, dry, chopped or sliced."

REHYDRATION GUIDE:

	<u>Dehydrated Onions</u>	+ <u>Water</u> (70-90°F.)	=	<u>Rehydrated Onions</u> OR <u>Dry Onion Equivalent*</u>
Dehydrated	2 oz (9 ² / ₃ tbsp)	1 ¹ / ₂ cups	8 oz (1 ¹ / ₄ cups)	1 lb (3 cups) (1 lb 1 ³ / ₄ oz A.P.)
chopped onions	3 ¹ / ₃ oz (1 cup)	2 ¹ / ₂ cups	13 oz (2 cups)	1 lb 10 oz (4 ³ / ₄ cups) (1 lb 13 oz A.P.)
	1 lb (4 ⁷ / ₈ cups)	3 qt	4 lb (2 ¹ / ₂ qt)	8 lb (1 ¹ / ₂ gal) (8 lb 14 oz A.P.)
	2 lb 8 oz (3 qt-1- No. 10 cn)	7 ¹ / ₂ qt	10 lb (6 ¹ / ₄ qt)	20 lb (3 ³ / ₄ gal) (22 lb 3 oz A.P.)
Dehydrated,	1 ³ / ₄ oz	1 ¹ / ₂ cups	8 oz (1 ¹ / ₈ cups)	1 lb (3 cups) (1 lb 1 ³ / ₄ oz A.P.)
compressed	2 ¹ / ₃ oz	2 cups	10 ¹ / ₂ oz (1 ³ / ₈ cups)	1 lb 5 oz (1 qt) (1 lb 7 oz A.P.)
chopped onions	1 lb	3 qt	4 lb 8 oz (2 ¹ / ₂ qt)	9 lb (6 ³ / ₄ qt) (10 lb A.P.)
	1 lb 3 oz (1-No. 2 ¹ / ₂ cn)	3 ¹ / ₂ qt	5 lb 5 ¹ / ₂ oz (3 qt)	10 lb 11 oz (2 gal) (11 lb 14 oz A.P.)

*Volume is for chopped onions.

FOR RECIPES WITH SMALL AMOUNTS OF LIQUID: Cover dehydrated onions with 70°F. to 90°F. water. Stir dehydrated compressed onions occasionally to break apart. Let dehydrated onions stand 30 minutes; compressed dehydrated onions 1 hour or more. Drain. Note: Weight of rehydrated onions will be less than weight of dry onions but appearance and flavor will be similar.

FOR SOUPS, STEWS, SAUCES OR RECIPES WITH A LOT OF LIQUID: Add dehydrated chopped or dehydrated compressed onions directly.

GREEN PEPPERS

Dehydrated green peppers may be used in any recipe which specifies "peppers, sweet, diced or chopped."

REHYDRATION GUIDE:

$$\text{Dehydrated Peppers} + \frac{\text{Cold Water}}{(35-55^{\circ}\text{F.})} = \text{Rehydrated Peppers} \quad \text{OR} \quad \text{Sweet Peppers Equivalent}^*$$

1 oz ($\frac{2}{3}$ cup)

2 cups

6 $\frac{1}{2}$ oz (1 $\frac{1}{3}$ cups)6 $\frac{1}{2}$ oz (1 $\frac{1}{4}$ cups) (8 oz A.P.)1 lb (2 $\frac{1}{2}$ qt)

2 gal

6 lb 8 oz (5 $\frac{1}{2}$ qt)6 lb 8 oz (1 $\frac{1}{4}$ gal) (7 lb 15 oz A.P.)

*Volume is for chopped peppers

FOR SALADS OR UNCOOKED DISHES: Cover with cold water. Refrigerate 1 hour or overnight. Drain.

FOR RECIPES WITH SMALL AMOUNTS OF LIQUID: Cover with cold water. Let stand 30 minutes. Drain.

FOR SOUPS, STEWS, SAUCES OR RECIPES WITH A LOT OF LIQUID: Add dehydrated peppers directly.

PARSLEY

Dehydrated parsley may be used in any recipe that specifies chopped fresh parsley.

REHYDRATION GUIDE:

$$\text{Dehydrated Parsley} + \frac{\text{Cold Water}}{(30-35^{\circ}\text{F.})} = \text{Rehydrated Parsley} \quad \text{OR} \quad \text{Fresh Parsley Equivalent}^*$$

1 oz (1 $\frac{2}{3}$ cups)3 $\frac{1}{3}$ cups8 oz (1 $\frac{3}{4}$ cups)9 oz (4 $\frac{1}{4}$ cups) (9 $\frac{1}{2}$ oz A.P.)

*Volume is for chopped parsley

FOR SALADS OR UNCOOKED DISHES: Cover with ice cold water. Let stand 3 to 5 minutes. Drain.

FOR SOUPS, STEWS, SAUCES OR RECIPES WITH A LOT OF LIQUID: Add dehydrated parsley directly.

RECONSTITUTING SOUP AND GRAVY BASES

Beef Soup and Gravy Base, Chicken Soup and Gravy Base, and Ham Soup and Gravy Base may be reconstituted and used as bouillon to extend natural meat juices, or as stock in recipes for soups, gravies, and sauces.

The powdered bases are seasoned and when reconstituted in boiling water will have the characteristic flavor and appearance of a beef broth or chicken broth or ham stock. When used in preparing a recipe, always check the seasoning before adding salt.

BASE		+ BOILING WATER
WEIGHT	MEASURE	
	2 tsp (1-7 gm env)	1 cup
1 oz	3 tbsp	1 qt
4 oz	12 tbsp	1 gal
8 oz	1-8 oz jar	2 gal
24 oz	1-No. 2½ can	6 gal

GUIDELINES FOR FRUIT BARS



Back row l. to r.
3rd row l. to r.
2nd row l. to r.
First row l. to r.

Pineapple, orange slices, fruit cocktail
Honeydew melon, strawberries, peaches
Cantaloupe, watermelon, grapefruit
Pears, grapes, apricots

GUIDELINES FOR FRUIT BARS

Fruit bars provide important sources of nutrients such as Vitamins A and C, and fiber. All fruits are low in fat and calories and none contain cholesterol. They may be set up for service at breakfast, lunch, dinner and brunch meals. A variety of fresh, canned and frozen fruits may be used.

Preparation: Wash all fresh fruits except bananas. Drain well. Refrigerate until ready to serve. Keep bananas in a cool, dry place until ready to serve.

ITEM	PORTION SIZE	100 PORTIONS	
		A.P. WT OR CONTAINER	E.P.
Apples, canned, drained...	1/4 cup (1 1/2 oz).....	13 lb 8 oz (2-No. 10 cn).....	12 lb.....
Apples, fresh, eating.....	1 apple (6 oz).....	37 lb 8 oz.....	.....
Applesauce, canned.....	1/4 cup (2 oz).....	14 lb 10 oz (2 1/6-No. 10 cn)..	.....
Apricots, canned, halves, drained	3 halves (1 1/2 oz).....	20 lb 4 oz (3-No. 10 cn).....	11 lb 10 oz....
Apricots, fresh.....	2 apricots (2 1/2 oz)....	16 lb 11 oz.....	.....
Bananas, fresh, peeled, thinly sliced	1/2 cup (2 1/2 oz).....	28 lb.....	18 lb 3 oz....
Bananas, fresh.....	1 banana (6 oz).....	40 lb.....	.....

ITEM	PORTION SIZE	100 PORTIONS	
		A.P. WT OR CONTAINER	E.P.
Blueberries, canned drained	1/2 cup (4 1/2 oz)	52 lb 10 oz (8 1/4-No. 10 cn) . . .	28 lb 6 oz.
Cantaloupe, fresh, seeded, unpared, quartered	1/4 small cantaloupe (3 oz)	21 lb 14 oz. . . . .	. . . . .
Cantaloupe, fresh, seeded, pared, 3/4 to 1 inch pieces	1/2 cup (2 1/2 oz)	35 lb.	17 lb 14 oz.
Casaba melons, fresh, seeded, unpared, sliced	1/10 melon (4 oz)	31 lb 4 oz. . . . .	. . . . .
Casaba melons, fresh, seeded, pared, 3/4 to 1 inch pieces	1/2 cup (2 1/2 oz)	29 lb 11 oz.	17 lb 12 oz.
Cherries, canned, dark, sweet, drained	1/2 cup (3 1/2 oz)	38 lb 13 oz (5 3/4-No. 10 cn) . . .	23 lb 14 oz.
Cherries, canned, light sweet, drained	1/2 cup (3 oz)	33 lb 12 oz (5-No. 10 cn)	20 lb 13 oz.
Cherries, fresh, sweet.	1/2 cup (2 1/2 oz)	17 lb 10 oz. . . . .	. . . . .

(CONTINUED)

GUIDELINES FOR FRUIT BARS--CONTINUED

ITEM	PORTION SIZE	100 PORTIONS	
		A.P. WT OR CONTAINER	E.P.
Coconut, prepared, sweetened, flakes	1 tbsp	1 lb 5 oz .....	.....
Fruit cocktail, canned, drained	1/2 cup (4 oz).....	42 lb 3 oz (6 ¹ / ₄ -No. 10 cn)...	27 lb 12 oz.....
Fruits, chunks, mixed, canned, drained	1/2 cup (3 oz).....	39 lb 2 oz (5 ³ / ₄ No. 10 cn)...	26 lb 3 oz.....
Grapefruit, canned, drained	1/2 cup (4 oz).....	46 lb 14 oz (15-No. 3 cyl cn or 47-No. 303 cn)	25 lb 10 oz.....
Grapefruit, fresh, halved	1/2 grapefruit (8 ³ / ₄ oz)	54 lb 11 oz.....	.....
Grapefruit, fresh, segments	1/2 cup (4 oz).....	48 lb	25 lb
Grapes, fresh.....	1/2 cup (2 ¹ / ₂ oz).....	16 lb 11 oz.....	.....
Honeyball melons, fresh, seeded, unpared, sliced	1/10 melon (3 oz)....	40 lb 15 oz.....	.....
Honeyball melons, fresh, seeded, pared, 3/4 to 1 inch pieces	1/2 cup (2 ¹ / ₂ oz).....	37 lb 14 oz.....	17 lb 7 oz.....
Honeydew melons, fresh, seeded, unpared, sliced	1/10 melon (3 oz)....	40 lb 15 oz.....

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A. GENERAL INFORMATION No. 13(3)

ITEM	PORTION SIZE	100 PORTIONS	
		A.P. WT OR CONTAINER	E.P.
Honeydew melons, fresh, seeded, pared, $\frac{3}{4}$ to 1 inch pieces	$\frac{1}{2}$ cup ($2\frac{1}{2}$ oz.)	37 lb 14 oz.	17 lb 7 oz.
Kiwifruit, fresh, pared, $\frac{3}{8}$ inch slices	2 slices ($\frac{1}{2}$ oz.)	5 lb 14 oz.	5 lb 1 oz.
Mangoes, fresh, pared, $\frac{1}{2}$ by $\frac{3}{4}$ by $\frac{1}{2}$ inch cubes	$\frac{1}{2}$ cup (3 oz.)	27 lb 12 oz.	19 lb 3 oz.
Mangoes, fresh, pared, seeded, $\frac{1}{2}$ inch slices cut in half	4 slices (2 oz.)	18 lb 9 oz.	12 lb 12 oz.
Nectarines, fresh.	1 nectarine ($4\frac{1}{2}$ oz)	28 lb 2 oz. . . . .	. . . . .
Oranges, fresh, peeled, sliced, $\frac{3}{8}$ inch	3 slices (2 oz.)	20 lb 9 oz.	14 lb 9 oz.
Oranges, fresh.	1 orange (6 oz.) . . .	37 lb 8 oz. . . . .	. . . . .
Oranges, Mandarin, canned, drained	$\frac{1}{4}$ cup ($1\frac{1}{2}$ oz.) . . .	20 lb 4 oz (3-No. 10 cn)	10 lb 15 oz.
Papaya, fresh, pared, seeded, $\frac{1}{2}$ by $\frac{3}{4}$ by $\frac{1}{2}$ inch cubes	$\frac{1}{2}$ cup ($2\frac{1}{2}$ oz.) . . .	24 lb.	15 lb 11 oz.

(CONTINUED)

GUIDELINES FOR FRUIT BARS--CONTINUED

ITEM	PORTION SIZE	100 PORTIONS	
		A.P. WT OR CONTAINER	E. P.
Papaya, fresh, pared, seeded, 1/2 inch slices	3 slices (2 oz)	22 lb 8 oz.	14 lb 11 oz.
Peaches, canned, halves, drained	2 halves (4 oz)	45 lb 9 oz (6 ³ / ₄ -No. 10 cn) . . .	27 lb 7 oz.
Peaches, canned, quarters/ slices, drained	1/2 cup (4 oz)	43 lb 14 oz (6 ¹ / ₂ -No. 10 cn) . .	27 lb.
Peaches, fresh.	1 peach (4 oz)	25 lb. . . . .	. . . . .
Peaches, frozen, partially thawed	1/2 cup (4 oz)	27 lb 13 oz (4 ¹ / ₄ -No. 10 cn) . .	. . . . .
Pears, canned, halves, drained	2 halves (3 ¹ / ₂ oz)	41 lb 7 oz (6 ¹ / ₄ -No. 10 cn) . . .	25 lb.
Pears, canned, quarters/ slices, drained	1/2 cup (3 ¹ / ₂ oz)	36 lb 7 oz (5 ¹ / ₂ -No. 10 cn) . . .	22 lb 8 oz.
Pears, fresh.	1 pear (5 ¹ / ₂ oz)	36 lb. . . . .	. . . . .
Persian melons, fresh, seeded, unpared, sliced	1/10 melon (3 oz)	45 lb 13 oz. . . . .	. . . . .
Persian melons, fresh, seeded, pared, 3/4 to 1 inch pieces	1/2 cup (2 ¹ / ₂ oz)	41 lb 4 oz.	17 lb 5 oz.
Pineapple, canned, chunks/tidbits, drained	1/2 cup (3 ¹ / ₂ oz)	37 lb 2 oz (5 ¹ / ₂ -No. 10 cn)	22 lb 10 oz.

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A. GENERAL INFORMATION No. 13(4)

ITEM	PORTION SIZE	100 PORTIONS	
		A.P. WT OR CONTAINER	E. P.
Pineapple, canned, slices, drained	2 slices (2 oz). . . .	25 lb 5 oz (3 ³ / ₄ -No. 10 cn). .	14 lb 7 oz.
Pineapple, fresh, pared, cored, 3/4 to 1 inch pieces	1/2 cup (2 ¹ / ₂ oz). . .	33 lb 4 oz.	17 lb 5 oz.
Plums, canned, drained. . .	3 plums (2 ¹ / ₂ oz). . .	32 lb 1 oz (4 ³ / ₄ -No. 10 cn). .	17 lb 13 oz.
Plums, fresh.	1 plum (2 ¹ / ₂ oz). . .	15 lb 10 oz. . . . .	. . . . .
Prunes, whole, canned, drained	3 prunes (1 ¹ / ₂ oz). . .	10 lb 1 oz (1 ² / ₅ -No. 10 cn). .	9 lb 10 oz.
Raisins.	1 tbsp.	2 lb 4 oz (1/2-No. 10 cn). . .	. . . . .
Raspberries, frozen, partially thawed	1/2 cup (4 oz).	27 lb 13 oz (4 ¹ / ₄ -No. 10 cn)	. . . . .
Strawberries, fresh, sliced. .	1/2 cup (2 ¹ / ₂ oz). . .	18 lb 4 oz.	17 lb 3 oz.
Strawberries, fresh, whole or cut in half	1/2 cup (2 ¹ / ₂ oz). . .	16 lb 9 oz.	15 lb 10 oz.
Strawberries, frozen, sliced, partially thawed	1/2 cup (4 oz).	27 lb 13 oz (4 ¹ / ₄ -No. 10 cn)	. . . . .
Tangelos, fresh.	1 tangelo (6 oz). . .	37 lb 8 oz. . . . .	. . . . .
Tangerines, fresh.	1 tangerine (3 ¹ / ₂ oz)	22 lb 15 oz. . . . .	. . . . .
Watermelons, fresh, unpared, wedge (1 inch by 4 inches)	1 wedge (4 oz). . . .	51 lb. . . . .	. . . . .
Watermelons, fresh, pared, 3/4 to 1 inch pieces	1/2 cup (2 ¹ / ₂ oz). . .	34 lb.	17 lb 11.

GUIDELINES FOR USE OF MICROWAVE OVENS

A microwave oven heats, cooks, or thaws food by means of short energy waves called microwaves. Oven-proof glass, paper, oven-proof dinnerware and plastic are transparent to microwaves and will permit microwaves to pass through them with little or no absorption. It is recommended that food be placed inside the microwave oven on a plate or container made of one of these materials. AVOID heating or cooking foods in metal or metallic containers and the use of metallic covers such as aluminum foil. Do not use melamine plastic tableware as a cooking/heating container in the microwave oven. Melamine tableware absorbs microwave energy. It becomes dangerously hot and could explode.

Cooking, heating or thawing time in a microwave oven depends on the amount of food, its density, shape, initial temperature (i. e. , frozen, thawed), desired final temperature and the power level of the oven. Time and portion control are important. Because of microwave cooking speed, greater care must be taken to prevent over-cooking/heating. A general rule is to underestimate cooking/heating time, then add time if necessary. As with conventional methods, there is often some temperature rise (additional cooking) after food is removed from the oven, and this should be taken into consideration. The manufacturer's operating manual for cooking guidelines should be followed for approximate cooking times.

SAFETY PRECAUTIONS: Microwave ovens will not emit dangerous levels of microwave energy if properly used and maintained. The manufacturer's operating manual should be thoroughly read and guidelines followed for safe and efficient use of the microwave oven. If not available, follow these general guidelines:

- a. DO NOT operate oven with the door open. Open-door operation can result in harmful exposure to microwave energy. Do not break or tamper with the safety interlocks.
- b. Never close the oven door on utensils, cloths and other objects, or allow soil or cleaner residue to accumulate on the sealing surfaces.

- c. DO NOT operate oven with an empty cavity. Keep all metal utensils out of the oven cavity at all times.
- d. DO NOT obstruct cooling vents in the oven housing.
- e. DO NOT operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the (1) door (bent) (2) hinges and latches (broken or loosened) (3) door seals and sealing surfaces.

The oven should not be adjusted or repaired by anyone except properly qualified personnel. The oven shall be inspected at least quarterly for radiation leakage or as required by each service. Any repairs involving the oven door or exterior housing should be followed by recertification for microwave leakage.

GENERAL OPERATION: Operating instructions may differ depending on the manufacturer and model of the microwave oven. The manufacturer's operating manual should be consulted for instructions on the particular make/model of microwave oven. If not available, follow these general instructions:

- a. Place food on a suitable container (oven-proof glass or dinnerware or paper). DO NOT use metal or metallic containers or aluminum foil.
- b. Most food item(s) should be covered with a suitable cover (glass, china, or paper) for faster heating/cooking and to prevent spattering the oven. DO NOT cover bakery items, sandwiches or breaded products. These products become soggy when covered.
- c. Place item in center of microwave oven. Close oven door securely; select proper time setting.

CLEANING: A buildup of food and grease on the interior oven surfaces can result in damage to the materials and surfaces as well as a loss in cooking power. To keep the microwave oven safe and operational, follow the manufacturer's operating manual.

(CONTINUED)

GUIDELINES FOR USE OF MICROWAVE OVENS

SANTARY PRECAUTIONS:

FRESH PORK: Fresh pork (pork chops, pork sausage, diced pork, pork loin, pork spareribs, pork tenderloin, pork steaks) should not be cooked in a microwave oven.

Fresh pork should be cooked to a consistent internal temperature of 170°F. With rapid cooking methods such as microwaving, heat may not be evenly distributed resulting in "cold spots." "Cold spots" can harbor infectious trichinae organisms that might be present in fresh pork.

MICROWAVE OVEN THAWING: Frozen foods may be thawed in microwave ovens provided they are immediately cooked thereafter as a part of a continuous cooking process. Some microwave ovens may include a thawing or defrost setting. Consult the manufacturer's directions for use.

CONVERSION OF QUANTITIES IN RECIPES**Weight Conversion Chart**

The following chart for weights permit easy adjustment of recipes to yield the number of portions actually needed. Since recipes are based on 100 portions, find the amount as specified in the recipe under the column headed 100 portions, and then use the amount shown in the column with the heading for the number of portions to be prepared, i.e., if a recipe for 100 uses 1 pound of flour, find 1 pound under the column headed 100 portions and then look in the column under 125 portions and you will see that you should use 1 pound 4 ounces to prepare 125 portions of the item.

oz-ounce**lb-pound****Weight Conversion Chart**

10 Portions	25 Portions	50 Portions	75 Portions	100 Portions	125 Portions	150 Portions	175 Portions	250 Portions	275 Portions	300 Portions
$\frac{1}{10}$ oz	$\frac{1}{4}$ oz	$\frac{1}{2}$ oz	$\frac{3}{4}$ oz	1 oz	$1\frac{1}{4}$ oz	$1\frac{1}{2}$ oz	$1\frac{3}{4}$ oz	$2\frac{1}{2}$ oz	$2\frac{3}{4}$ oz	3 oz
$\frac{1}{5}$ oz	$\frac{1}{2}$ oz	1 oz	$1\frac{1}{2}$ oz	2 oz	$2\frac{1}{2}$ oz	3 oz	$3\frac{1}{2}$ oz	5 oz	$5\frac{1}{2}$ oz	6 oz
$\frac{3}{10}$ oz	$\frac{3}{4}$ oz	$1\frac{1}{2}$ oz	$2\frac{1}{4}$ oz	3 oz	$3\frac{3}{4}$ oz	$4\frac{1}{2}$ oz	5 oz	$7\frac{1}{2}$ oz	8 oz	9 oz
$\frac{2}{5}$ oz	1 oz	2 oz	3 oz	4 oz	5 oz	6 oz	7 oz	10 oz	11 oz	12 oz
$\frac{1}{2}$ oz	$1\frac{1}{4}$ oz	$2\frac{1}{2}$ oz	$3\frac{3}{4}$ oz	5 oz	6 oz	$7\frac{1}{2}$ oz	8 oz	$12\frac{1}{2}$ oz	14 oz	15 oz
$\frac{3}{5}$ oz	$1\frac{1}{2}$ oz	3 oz	$4\frac{1}{2}$ oz	6 oz	$7\frac{1}{2}$ oz	9 oz	$10\frac{1}{2}$ oz	15 oz	1 lb	1 lb 2 oz
$\frac{7}{10}$ oz	$1\frac{3}{4}$ oz	$3\frac{1}{2}$ oz	5 oz	7 oz	9 oz	$10\frac{1}{2}$ oz	12 oz	1 lb 1 oz	1 lb 3 oz	1 lb 5 oz

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A. GENERAL INFORMATION No. 15(1)

10 Portions	25 Portions	50 Portions	75 Portions	100 Portions	125 Portions	150 Portions	175 Portions	250 Portions	275 Portions	300 Portions
$\frac{4}{5}$ oz	2 oz	4 oz	6 oz	8 oz	10 oz	12 oz	14 oz	1 lb 4 oz	1 lb 6 oz	1 lb 8 oz
$\frac{9}{10}$ oz	$2\frac{1}{4}$ oz	$4\frac{1}{4}$ oz	7 oz	9 oz	11 oz	$13\frac{1}{2}$ oz	1 lb	1 lb $6\frac{1}{2}$ oz	1 lb 9 oz	1 lb 11 oz
1 oz	$2\frac{1}{2}$ oz	5 oz	$7\frac{1}{2}$ oz	10 oz	$12\frac{1}{2}$ oz	15 oz	1 lb $1\frac{1}{2}$ oz	1 lb 9 oz	1 lb 12 oz	1 lb 14 oz
$1\frac{1}{10}$ oz	$2\frac{3}{4}$ oz	$5\frac{1}{2}$ oz	8 oz	11 oz	14 oz	1 lb	1 lb 3 oz	1 lb 12 oz	2 lb	2 lb 1 oz
$1\frac{2}{5}$ oz	3 oz	6 oz	9 oz	12 oz	15 oz	1 lb 2 oz	1 lb 5 oz	1 lb 14 oz	2 lb	2 lb 4 oz
$1\frac{3}{5}$ oz	$3\frac{1}{4}$ oz	$6\frac{1}{2}$ oz	10 oz	13 oz	1 lb $\frac{1}{4}$ oz	1 lb $3\frac{1}{2}$ oz	1 lb 7 oz	2 lb	2 lb 4 oz	2 lb 7 oz
$1\frac{2}{5}$ oz	$3\frac{1}{2}$ oz	7 oz	$10\frac{1}{2}$ oz	14 oz	1 lb $\frac{1}{2}$ oz	1 lb 5 oz	1 lb $8\frac{1}{2}$ oz	2 lb 3 oz	2 lb 7 oz	2 lb 10 oz
$1\frac{1}{2}$ oz	$3\frac{3}{4}$ oz	$7\frac{1}{2}$ oz	11 oz	15 oz	1 lb 3 oz	1 lb $6\frac{1}{2}$ oz	1 lb 10 oz	2 lb 6 oz	2 lb 9 oz	2 lb 13 oz
$1\frac{3}{5}$ oz	4 oz	8 oz	12 oz	1 lb	1 lb 4 oz	1 lb 8 oz	1 lb 12 oz	2 lb 8 oz	2 lb 12 oz	3 lb
2 oz	5 oz	10 oz	15 oz	1 lb 4 oz	1 lb 9 oz	1 lb 14 oz	2 lb 3 oz	3 lb 2 oz	3 lb 7 oz	3 lb 12 oz
$2\frac{2}{5}$ oz	6 oz	12 oz	1 lb 2 oz	1 lb 8 oz	1 lb 14 oz	2 lb 4 oz	2 lb 10 oz	3 lb 12 oz	4 lb 2 oz	4 lb 8 oz
$2\frac{4}{5}$ oz	7 oz	14 oz	1 lb 5 oz	1 lb 12 oz	2 lb 3 oz	2 lb 10 oz	3 lb 1 oz	4 lb 6 oz	4 lb 13 oz	5 lb 4 oz
$3\frac{1}{5}$ oz	8 oz	1 lb	1 lb 8 oz	2 lb	2 lb 8 oz	3 lb	3 lb 8 oz	5 lb	5 lb 8 oz	6 lb
$3\frac{3}{5}$ oz	9 oz	1 lb 2 oz	1 lb 11 oz	2 lb 4 oz	2 lb 13 oz	3 lb 6 oz	3 lb 15 oz	5 lb 10 oz	6 lb 3 oz	6 lb 12 oz
4 oz	10 oz	1 lb 4 oz	1 lb 14 oz	2 lb 8 oz	3 lb 2 oz	3 lb 12 oz	4 lb 6 oz	6 lb 4 oz	6 lb 14 oz	7 lb 8 oz

(CONTINUED)

CONVERSION OF QUANTITIES IN RECIPES

Weight Conversion Chart

10 Portions	25 Portions	50 Portions	75 Portions	100 Portions	125 Portions	150 Portions	175 Portions	250 Portions	275 Portions	300 Portions
$4\frac{2}{5}$ oz	11 oz	1 lb 6 oz	2 lb 1 oz	2 lb 12 oz	3 lb 7 oz	4 lb 2 oz	4 lb 13 oz	6 lb 14 oz	7 lb 9 oz	8 lb 4 oz
$4\frac{4}{5}$ oz	12 oz	1 lb 8 oz	2 lb 4 oz	3 lb	3 lb 12 oz	4 lb 8 oz	5 lb 4 oz	7 lb 8 oz	8 lb 4 oz	9 lb
$5\frac{1}{5}$ oz	13 oz	1 lb 10 oz	2 lb 7 oz	3 lb 4 oz	4 lb 1 oz	4 lb 14 oz	5 lb 11 oz	8 lb 2 oz	8 lb 15 oz	9 lb 12 oz
$5\frac{3}{5}$ oz	14 oz	1 lb 12 oz	2 lb 10 oz	3 lb 8 oz	4 lb 6 oz	5 lb 4 oz	6 lb 2 oz	8 lb 12 oz	9 lb 10 oz	10 lb 8 oz
6 oz	15 oz	1 lb 14 oz	2 lb 13 oz	3 lb 12 oz	4 lb 11 oz	5 lb 10 oz	6 lb 9 oz	9 lb 6 oz	10 lb 5 oz	11 lb 4 oz
$6\frac{2}{5}$ oz	1 lb	2 lb	3 lb	4 lb	5 lb	6 lb	7 lb	10 lb	11 lb	12 lb
8 oz	1 lb 4 oz	2 lb 8 oz	3 lb 12 oz	5 lb	6 lb 4 oz	7 lb 8 oz	8 lb 12 oz	12 lb 8 oz	13 lb 12 oz	15 lb
$9\frac{3}{5}$ oz	1 lb 8 oz	3 lb	4 lb 8 oz	6 lb	7 lb 8 oz	9 lb	10 lb 8 oz	15 lb	16 lb 8 oz	18 lb
$11\frac{1}{5}$ oz	1 lb 12 oz	3 lb 8 oz	5 lb 4 oz	7 lb	8 lb 12 oz	10 lb 8 oz	12 lb 4 oz	17 lb 8 oz	19 lb 4 oz	21 lb
$12\frac{4}{5}$ oz	2 lb	4 lb	6 lb	8 lb	10 lb	12 lb	14 lb	20 lb	22 lb	24 lb
1 lb	2 lb 8 oz	5 lb	7 lb 8 oz	10 lb	12 lb 8 oz	15 lb	17 lb 8 oz	25 lb	27 lb 8 oz	30 lb
1 lb 3 oz	3 lb	6 lb	9 lb	12 lb	15 lb	18 lb	21 lb	30 lb	33 lb	36 lb
1 lb 8 oz	3 lb 12 oz	7 lb 8 oz	11 lb 4 oz	15 lb	18 lb 12 oz	22 lb 8 oz	26 lb 4 oz	37 lb 8 oz	41 lb 4 oz	45 lb
2 lb	5 lb	10 lb	15 lb	20 lb	25 lb	30 lb	35 lb	50 lb	55 lb	60 lb
3 lb	7 lb 8 oz	15 lb	22 lb 8 oz	30 lb	37 lb 8 oz	45 lb	52 lb 8 oz	75 lb	82 lb 8 oz	90 lb

REVISION

CONVERSION OF QUANTITIES IN RECIPES**Measure Conversion Chart**

The following chart for measures permits easy adjustments of recipes to yield the number of portions actually needed. Since recipes are based on 100 portions, find the amount as specified in the recipe under column headed 100 portions and then use the amount shown in the column with the heading for the number of portions to be prepared, i.e., if a recipe for 100 uses 3 cups of flour, find 3 cups under the column headed 100 portions and then look in the column under 125 portions and you will see that you should use $3\frac{3}{4}$ cups to prepare 125 portions of the item.

tsp--teaspoon

tbsp--tablespoon

qt--quart

gal--gallon

10 Portions	25 Portions	50 Portions	75 Portions	100 Portions	125 Portions	150 Portions	175 Portions	250 Portions	275 Portions	300 Portions
.....	$\frac{1}{4}$ tsp	$\frac{1}{2}$ tsp	$\frac{3}{4}$ tsp	1 tsp	$1\frac{1}{4}$ tsp	$1\frac{1}{2}$ tsp	$1\frac{3}{4}$ tsp	$2\frac{1}{2}$ tsp	$2\frac{3}{4}$ tsp	1 tbsp
.....	$\frac{1}{2}$ tsp	1 tsp	$1\frac{1}{2}$ tsp	2 tsp	$2\frac{1}{2}$ tsp	1 tbsp	$3\frac{1}{2}$ tsp	$12\frac{2}{3}$ tbsp	$17\frac{7}{8}$ tbsp	2 tbsp
$\frac{1}{4}$ tsp	$\frac{3}{4}$ tsp	$1\frac{1}{2}$ tsp	2 tsp	1 tbsp	$3\frac{3}{4}$ tsp	$1\frac{1}{3}$ tbsp	$1\frac{2}{3}$ tbsp	$2\frac{1}{3}$ tbsp	$2\frac{2}{3}$ tbsp	3 tbsp
$\frac{1}{2}$ tsp	$1\frac{1}{2}$ tsp	1 tbsp	$1\frac{2}{3}$ tbsp	2 tbsp	$2\frac{2}{3}$ tbsp	3 tbsp	$3\frac{2}{3}$ tbsp	5 tbsp	$5\frac{2}{3}$ tbsp	6 tbsp
$\frac{3}{4}$ tsp	$2\frac{1}{4}$ tsp	$1\frac{2}{3}$ tbsp	$2\frac{1}{3}$ tbsp	3 tbsp	$\frac{1}{4}$ cup	$4\frac{2}{3}$ tbsp	5 tbsp	$7\frac{2}{3}$ tbsp	$\frac{1}{2}$ cup	9 tbsp
1 tsp	1 tbsp	2 tbsp	3 tbsp	$\frac{1}{4}$ cup	5 tbsp	6 tbsp	7 tbsp	10 tbsp	11 tbsp	$\frac{3}{4}$ cup
$1\frac{1}{2}$ tsp	$3\frac{3}{4}$ tsp	$2\frac{2}{3}$ tbsp	4 tbsp	5 tbsp	6 tbsp	$7\frac{2}{3}$ tbsp	9 tbsp	$12\frac{2}{3}$ tbsp	14 tbsp	1 cup
$1\frac{3}{4}$ tsp	$4\frac{1}{2}$ tsp	3 tbsp	$4\frac{2}{3}$ tbsp	6 tbsp	$7\frac{2}{3}$ tbsp	$\frac{1}{2}$ cup	$10\frac{2}{3}$ tbsp	15 tbsp	1 cup	1 cup + 2 tbsp

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10 Portions	25 Portions	50 Portions	75 Portions	100 Portions	125 Portions	150 Portions	175 Portions	250 Portions	275 Portions	300 Portions
2 tsp	5 $\frac{1}{4}$ tsp	3 $\frac{2}{3}$ tbsp	5 tbsp	7 tbsp	9 tbsp	10 $\frac{2}{3}$ tbsp	$\frac{3}{4}$ cup	1 cup + 1 $\frac{2}{3}$ tbsp	1 cup + 3 tbsp	1 $\frac{1}{3}$ cups
2 $\frac{1}{4}$ tsp	2 tbsp	4 tbsp	6 tbsp	$\frac{1}{2}$ cup	10 tbsp	$\frac{3}{4}$ cup	14 tbsp	1 $\frac{1}{4}$ cups	1 cup + 6 tbsp	1 $\frac{1}{2}$ cups
2 $\frac{1}{2}$ tsp	2 tbsp	4 $\frac{2}{3}$ tbsp	7 tbsp	9 tbsp	11 tbsp	13 $\frac{2}{3}$ tbsp	1 cup	1 cup + 6 tbsp	1 $\frac{1}{2}$ cups	1 $\frac{3}{4}$ cups
1 tbsp	2 $\frac{2}{3}$ tbsp	5 tbsp	7 $\frac{2}{3}$ tbsp	10 tbsp	$\frac{3}{4}$ cup	1 cup	1 cup + 2 tbsp	1 $\frac{1}{2}$ cups	1 $\frac{3}{4}$ cups	2 cups
3 $\frac{1}{4}$ tsp	3 tbsp	5 $\frac{2}{3}$ tbsp	8 tbsp	11 tbsp	14 tbsp	1 cup	1 cup + 3 tbsp	1 $\frac{3}{4}$ cups	2 cups	2 $\frac{1}{8}$ cups
3 $\frac{1}{2}$ tsp	3 tbsp	6 tbsp	9 tbsp	$\frac{3}{4}$ cup	1 cup	1 cup + 2 tbsp	1 $\frac{1}{4}$ cups	2 cups	2 cups + 2 tbsp	2 $\frac{1}{4}$ cups
3 $\frac{3}{4}$ tsp	3 tbsp	6 $\frac{2}{3}$ tbsp	10 tbsp	13 tbsp	1 cup	1 $\frac{1}{4}$ cups	1 $\frac{1}{2}$ cups	2 cups	2 $\frac{1}{4}$ cups	2 $\frac{1}{2}$ cups
1 $\frac{1}{3}$ tbsp	3 $\frac{2}{3}$ tbsp	7 tbsp	10 $\frac{2}{3}$ tbsp	14 tbsp	1 cup + 2 tbsp	1 $\frac{1}{3}$ cups	1 $\frac{1}{2}$ cups	2 cups + 3 tbsp	2 $\frac{1}{3}$ cups	2 $\frac{1}{2}$ cups
4 $\frac{1}{2}$ tsp	3 $\frac{3}{4}$ tbsp	7 $\frac{2}{3}$ tbsp	11 tbsp	15 tbsp	1 $\frac{1}{4}$ cups	1 $\frac{1}{2}$ cups	1 $\frac{3}{4}$ cups	2 $\frac{1}{3}$ cups	2 $\frac{3}{4}$ cups	2 $\frac{7}{8}$ cups
4 $\frac{3}{4}$ tsp	$\frac{1}{4}$ cup	$\frac{1}{2}$ cup	$\frac{3}{4}$ cup	1 cup	1 $\frac{1}{4}$ cups	1 $\frac{1}{2}$ cups	1 $\frac{3}{4}$ cups	2 $\frac{1}{2}$ cups	2 $\frac{3}{4}$ cups	3 cups
2 tbsp	5 tbsp	10 tbsp	1 cup	1 $\frac{1}{4}$ cups	1 $\frac{1}{2}$ cups	2 cups	2 $\frac{1}{4}$ cups	3 cups	3 $\frac{1}{2}$ cups	3 $\frac{3}{4}$ cups
7 tsp	6 tbsp	$\frac{3}{4}$ cup	1 cup + 2 tbsp	1 $\frac{1}{2}$ cups	2 cups	2 $\frac{1}{4}$ cups	2 $\frac{3}{4}$ cups	3 $\frac{3}{4}$ cups	1 qt	4 $\frac{1}{2}$ cups

(CONTINUED)

CONVERSION OF QUANTITIES IN RECIPES

Measure Conversion Chart

10 Portions	25 Portions	50 Portions	75 Portions	100 Portions	125 Portions	150 Portions	175 Portions	250 Portions	275 Portions	300 Portions
8 ¹ / ₄ tsp	7 tbsp	14 tbsp	1 ¹ / ₃ cups	1 ³ / ₄ cups	2 ¹ / ₄ cups	2 ³ / ₄ cups	3 cups	4 ¹ / ₂ cups	4 ³ / ₄ cups	5 ¹ / ₄ cups
9 ¹ / ₂ tsp	1 ¹ / ₂ cup	1 cup	1 ¹ / ₂ cups	2 cups	2 ¹ / ₂ cups	3 cups	3 ¹ / ₂ cups	5 cups	5 ¹ / ₂ cups	1 ¹ / ₂ qt
10 ³ / ₄ tsp	1 ¹ / ₂ cup + 1 tbsp	1 cup + 2 tbsp	1 ³ / ₄ cups	2 ¹ / ₄ cups	2 ³ / ₄ cups	3 ¹ / ₂ cups	1 qt	5 ³ / ₄ cups	1 ¹ / ₂ qt	6 ³ / ₄ cups
1 ¹ / ₄ cup	10 tbsp	1 ¹ / ₄ cups	2 cups	2 ¹ / ₂ cups	3 cups + 2 tbsp	3 ³ / ₄ cups	4 ¹ / ₂ cups	6 ¹ / ₄ cups	1 ³ / ₄ qt	7 ¹ / ₂ cups
4 ³ / ₄ tbsp	3 ⁴ / ₄ cup	1 ¹ / ₂ cups	2 ¹ / ₄ cups	3 cups	3 ³ / ₄ cups	4 ¹ / ₂ cups	5 ¹ / ₄ cups	7 ¹ / ₂ cups	8 ¹ / ₄ cups	2 ¹ / ₄ qt
5 ² / ₃ tbsp	14 tbsp	1 ³ / ₄ cups	2 ¹ / ₂ cups	3 ¹ / ₂ cups	4 ¹ / ₂ cups	1 ¹ / ₄ qt	1 ¹ / ₂ qt	2 ¹ / ₄ qt	9 ³ / ₄ cups	10 ¹ / ₂ cups
6 ¹ / ₄ tbsp	1 cup	2 cups	3 cups	1 qt	1 ¹ / ₄ qt	1 ¹ / ₂ qt	1 ³ / ₄ qt	2 ¹ / ₂ qt	2 ³ / ₄ qt	3 qt
1 ¹ / ₂ cup	1 ¹ / ₄ cups	2 ¹ / ₂ cups	3 ³ / ₄ cups	1 ¹ / ₄ qt	6 ¹ / ₄ cups	7 ¹ / ₂ cups	8 ³ / ₄ cups	12 ¹ / ₂ cups	3 ¹ / ₂ qt	3 ³ / ₄ qt
9 ³ / ₄ tbsp	1 ¹ / ₂ cups	3 cups	4 ¹ / ₂ cups	1 ¹ / ₂ qt	7 ¹ / ₂ cups	2 ¹ / ₄ qt	10 ¹ / ₂ cups	3 ³ / ₄ qt	1 gal	4 ¹ / ₂ qt
11 tbsp	1 ³ / ₄ cups	3 ¹ / ₂ cups	5 ¹ / ₄ cups	7 cups	8 ³ / ₄ cups	10 ¹ / ₂ cups	3 qt	1 gal + 1 ¹ / ₂ cups	1 gal + 3 ¹ / ₄ cups	5 ¹ / ₄ qt
12 ³ / ₄ tbsp	2 cups	1 qt	1 ¹ / ₂ qt	2 qt	2 ¹ / ₄ qt	3 qt	3 ¹ / ₂ qt	1 ¹ / ₄ gal	5 ¹ / ₂ qt	1 ¹ / ₂ gal
1 ¹ / ₄ cups	3 cups	1 ¹ / ₂ qt	2 ¹ / ₄ qt	3 qt	3 ³ / ₄ qt	4 ¹ / ₂ qt	5 ¹ / ₄ qt	7 ¹ / ₂ qt	2 gal	2 ¹ / ₄ gal
1 ¹ / ₂ cups	1 qt	2 qt	3 qt	1 gal	1 ¹ / ₄ gal	1 ¹ / ₂ gal	1 ³ / ₄ gal	2 ¹ / ₂ gal	2 ³ / ₄ gal	3 gal
3 cups	2 qt	1 gal	1 ¹ / ₂ gal	2 gal	2 ¹ / ₄ gal	3 gal	3 ¹ / ₂ gal	5 gal	5 ¹ / ₂ gal	6 gal
4 ¹ / ₂ cups	3 qt	1 ¹ / ₂ gal	2 ¹ / ₄ gal	3 gal	3 ³ / ₄ gal	4 ¹ / ₂ gal	5 ¹ / ₄ gal	7 ¹ / ₄ gal	8 gal	9 gal
1 ¹ / ₂ qt	1 gal	2 gal	3 gal	4 gal	5 gal	6 gal	7 gal	10 gal	11 gal	12 gal
7 ¹ / ₂ cups	1 ¹ / ₄ gal	2 ¹ / ₂ gal	3 ³ / ₄ gal	5 gal	6 ¹ / ₄ gal	7 ¹ / ₂ gal	8 ³ / ₄ gal	12 ¹ / ₂ gal	13 ³ / ₄ gal	15 gal

USE OF DEHYDRATED GARLIC AND HORSERADISH

DEHYDRATED GARLIC

Dehydrated garlic may be added directly to recipes as a substitute for dry (fresh) garlic. For more garlic flavor, dissolve garlic in an equal volume of water.

SUBSTITUTION GUIDE:

Dehydrated

$\frac{1}{4}$ tsp

=

$\frac{3}{4}$ tsp

=

$2\frac{2}{3}$ tbsp (1 oz)

=

Dry (Fresh) Garlic

1 tsp minced (1 average clove)

1 tbsp minced (3 average cloves)

10 tbsp ($3\frac{1}{2}$ oz) minced (30 average cloves)

DRY (FRESH) GARLIC

Follow specific recipe for substitution of dry (fresh) garlic for dehydrated garlic. DO NOT SUBSTITUTE DRY (FRESH) GARLIC FOR DEHYDRATED GARLIC IN SALAD DRESSING RECIPES.

REVISION

(OVER)

DEHYDRATED HORSERADISH

Dehydrated horseradish should be rehydrated before use in a recipe as follows:

To one part by volume dehydrated horseradish add two parts by volume of warm water.

The rehydrated horseradish is about twice as potent in strength as prepared horseradish; use the following substitution: One part by volume rehydrated horseradish for two parts by volume prepared horseradish.

SUBSTITUTION GUIDE:

Dehydrated Horseradish	+	Warm Water	=	Rehydrated Volume	=	Prepared Horseradish Equivalent
$\frac{1}{2}$ oz ($2\frac{1}{3}$ tbsp)		$4\frac{2}{3}$ tbsp		6 tbsp		$\frac{3}{4}$ cup
$1\frac{2}{3}$ oz ($6\frac{2}{3}$ tbsp)		13 tbsp		1 cup		2 cups
$2\frac{1}{2}$ oz bottle (10 tbsp)		$1\frac{1}{4}$ cups		$1\frac{1}{2}$ cups		3 cups

Recipes using prepared horseradish will have a decreased volume when dehydrated horseradish is used. Additional water should NOT be used to yield a product equal in volume to the prepared horseradish.

GUIDELINES FOR USE OF FLOURS

All quantities in the Measures column of the recipes should be sifted before measuring. If flour weights rather than measures are used, the flour should be sifted after weighing to aerate the flour and to remove any foreign particles.

BREAD FLOUR is milled from blends of hard spring wheat and hard winter wheat or from either of these types alone. It is fairly high in protein and slightly granular to the touch. Bread flour is milled chiefly for making bread. Bread flour also is used in fruit cakes, cream puffs, and similar products which require strength in dough structure. One pound sifted bread flour measures 1 quart.

GENERAL PURPOSE FLOUR is milled from blends of hard and soft wheat. This flour is used for cookies, pie crust, biscuits, muffins, cakes, sauces, and gravies. One pound sifted general purpose flour measures 1 quart.

GUIDELINES FOR HANDLING FROZEN FOODS

Proper storage and thawing procedures for frozen foods are essential for keeping foods safe and palatable. Some foods, such as vegetables, do not need to be thawed before cooking. Many recipes require meat to be only partially thawed or tempered, to facilitate separation before cooking; this prevents excessive moisture loss. Unless otherwise indicated, preparation methods and cooking times are for thawed meat, fish and poultry.

Frozen foods should be stored at or below 0°F. and thawed at 36°F. DO NOT refreeze foods that have been thawed; cook and serve as soon as possible to promote maximum quality and safety.

FROZEN FRUITS: Thaw unopened under refrigeration (36°F. to 38°F.) or covered with cold water.

FROZEN FRUIT JUICES AND CONCENTRATES: These do not require thawing.

FROZEN VEGETABLES: These do not require thawing before cooking. For faster cooking, Brussels sprouts, broccoli, asparagus, cauliflower, and leafy greens may be partially thawed under refrigeration.

FROZEN MEATS: Improper thawing of meat encourages bacterial growth and also results in unnecessary loss of meat juices, poor quality and loss of yield and nutrients. To thaw meat, remove from shipping container, but leave inside wrappings (usually polyethylene bags) on meat. Thaw under refrigeration (36°F. to 38°F.) until almost completely thawed. Spread out large cuts, such as roasts, to allow air to circulate. The length of the thawing period will vary according to the size of the meat cut, the temperature and degree of air circulation in the chill space, and the quantity of meat being thawed in a given space. Boneless meats generally require 26 to 48 hours to thaw at 36°F. to 38°F.

Meat may be cooked frozen or tempered except for a few cuts which require complete thawing, i.e., bulk ground beef, bulk beef pattie mix, braising Swiss steak, bulk pork sausage and diced beef for stewing. While extra time is required to thaw meat completely before cooking , additional energy and cooking time are required to cook frozen meat.

Roasts, when cooked from the frozen state, will require one-third to one-half more cooking time than thawed roasts. The addition of seasonings, if required, must be delayed until the outside is somewhat thawed and the surface is sufficiently moist to retain the seasonings. The insertion of meat thermometers must also be delayed until roasts are partially thawed. Grill steaks, pork chops and liver should be tempered before cooking to ensure a moist, palatable product. (See Recipe No. A-2 for definition of tempering.) Pork sausage patties and pork and beef sausage links should be cooked frozen.

FROZEN SEAFOOD: Fish fillets and steaks may be cooked frozen or thawed. Any fish that is to be breaded or batter dipped should be thawed. Clams, crabmeat, oysters, scallops and shrimp should be kept wrapped while thawing. Fish and shellfish should be thawed under refrigeration (36°F. to 38°F.) and require 12 hours to thaw.

Frozen, whole lobster, king crab legs, spiny lobster tail, breaded fish portions or nuggets, batter-dipped fish portions, or breaded oysters and shrimp **SHOULD NOT** be thawed before cooking.

FROZEN POULTRY: Poultry must be thawed under refrigeration (36°F. to 38°F.). Proper thawing of poultry reduces bacterial growth, maintains quality and retains nutrients through less drip loss.

(CONTINUED)

GUIDELINES FOR HANDLING FROZEN FOODS

Raw Chicken: Remove whole chickens from shipping containers and thaw in individual wrappers (plastic bags). To thaw parts or quarters, remove intermediate containers from shipping containers; remove overwrapping from intermediate containers and open intermediate containers to expose inner wrapping. Length of thawing period under refrigeration (36°F. to 38°F.) will vary according to size of chicken and refrigeration conditions.

Approximate Thawing Times: Chicken, whole—37 hours
 Chicken, quarters—52 hours
 Chicken, cut-up—52 hours

Precooked Breaded Chicken, Nuggets or Fillets: DO NOT THAW before cooking.

Precooked Unbreaded Chicken Fillets: Temper. DO NOT THAW before cooking.

Prepared Frozen Chilies rellenos, burritos, pizzas, enchiladas, lasagna, tamales, manicotti, cannelloni - DO NOT thaw before cooking.

Turkey: Remove turkeys from shipping containers. Thaw in individual wrappers under refrigeration (36°F. to 38°F.)

Approximate Thawing Times: Turkey, whole (16 lbs or less)—2 days
 Turkey, whole (over 16 lbs)—3 to 4 days
 Turkey, boneless—12 to 16 hours
 Turkey, ground - thaw
 Turkey sausage patties and links - cook frozen

FROZEN EGGS: Thaw under refrigeration (36°F. to 38°F.) or covered with cold water. Thirty pound cans require at least 2 days to thaw, 10 lb cans or cartons require at least 1 day.

FROZEN PIZZA BLEND CHEESE: If pizza blend cheese is received and stored as a frozen product, it should be thawed under refrigeration (36°F. to 38°F.) to ensure retention of its characteristic flavor, texture and appearance. Thawing at room temperature will encourage bacterial growth (inherent in the product) resulting in an undesirable flavor and swelling of the container.

GUIDELINES FOR USE OF ANTIBROWNING AGENT (NON SULFITING AGENTS)

The purpose of an antibrowning agent is to prevent browning and maintain color and crispness in fresh potatoes and fruits.

DIRECTIONS FOR USE

1. Dissolve $1\frac{3}{4}$ oz (3 tbsp) antibrowning agent per gallon of cold water in a clean stainless steel, glass or plastic container. DO NOT use galvanized metal containers.
2. Dip fresh white potatoes (peeled, whole, quarters, French fry cut, slices) or fruits (apples, avocados, bananas, peaches, pears) peeled, sliced and free from bruises in the antibrowning solution. Soak for 3 minutes.
3. Drain and refrigerate product until ready to use.

NOTE:

1. Keep antibrowning agent stored in its original container. Make the solution fresh daily. A plastic measuring spoon should be kept with the antibrowning agent for easy measuring.
2. Antibrowning agent is not required for lettuce, cauliflower, green peppers, cabbage, celery or pineapple.

GUIDELINES FOR USE OF STEAM COOKERS

Use of steamers in quantity food preparation can save cooking time, labor, help maintain appearance of food, and preserve nutrients normally lost by other cooking methods. Steamers are ideal for batch preparation. Foods may be steamed and served in the same pan, if steam table pans are used for preparation.

Steamers are either 5 lb pressure or 15 lb pressure (high speed) type. When food is steamed at 5 lb pressure, the internal temperature of the steamer is 225°F to 228°F. At 15 lb pressure, the temperature is 245°F to 250°F.

Most fresh or frozen vegetables, in addition to other foods such as rice, pasta, poultry, meats, fish, and shellfish can be cooked in steamers. Canned vegetables also can be quickly heated in steamers. See Guidelines For Steam Cooking Vegetables Recipe No. Q-G-4, Steamed Pasta Recipe No. E-13 and Steamed Rice (Steam Cooker Method) Recipe No. E-6.

Foods may be steamed in perforated or solid pans. Perforated pans are usually used, particularly for vegetables, unless the cooking liquid is retained or manufacturer's directions specify solid type pans. Pans are normally filled no more than $\frac{2}{3}$ full to allow steam to circulate for even cooking.

Cooking times will vary depending on the type steamer, food, and temperature and quantity of the product. For best results follow the manufacturer's cooking times and directions. Cooking time should be scheduled to include bringing food up to cooking temperature, as well as steaming time. Timing begins when the pressure gauge registers 3 lb on the 5 lb steamer and 9 lb on the 15 lb steamer. Be sure to use timer, if available, to prevent overcooking.

After cooking is completed, the steam should be exhausted slowly for safety and to preserve skins of vegetables such as peas. Leave steamer doors ajar for cooling and to preserve door gaskets.

GUIDELINES FOR GARNISHES

A garnish is a food item or part of a food item featured in such a way as to enhance the food served.

Garnishing is an art. It can be done well with little time or effort by following a few simple guidelines.

Generally, garnishes should be edible and should be an integral part of the food so that they will not be left on the plate. Not all food requires garnishing. Many recipes have built-in garnishes; examples are: beef stew with vegetables, creole shrimp, tossed vegetable salads, and desserts such as pies and cakes. They should be handled carefully to prevent spoilage and food-borne illness. (Note: always wash a vegetable before preparing it as a garnish).

Garnishes should be:

1. Simple, natural, and fresh in appearance.
2. Suitable in texture and size to the food.
3. Flavorful. Bland foods require a more highly seasoned garnish.
4. Arranged in a manner to enhance the food with which they are used.
5. Used sparingly. Sprinkle or place in small groupings.
6. Harmonious. Colors should never clash. Care should be used to produce combinations that will be pleasing to the eye.

The following list indicates some of the wide variety possible in edible garnishes:

Apples—unpared, slices, wedges
 Asparagus—spears
 Bacon, cooked—crumbled
 Beets—slices, julienne, grated
 Cabbage, red—shredded
 Carrots—sticks, curls, ribbons

Celery—sticks, curls, fans
 Cheese—cubes, grated, wedges
 Cherry tomatoes—whole, halves
 Coconut—flaked
 Crabapples, spiced
 Cranberry sauce—slices, wedges

Croutons
 Cucumbers—rings, slices, sticks
 Dates—halves, pieces, whole
 Dessert topping—whipped
 Grapes—whole, slices

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Kiwi fruit—slices	Onions—rings, mums	Peppers, sweet, green—rings, slices, sticks
Lemon—wedges, slices, grated rind, twists	Oranges—slices, grated rind, wedges, twists	Pickles—sticks, slices
Maraschino cherries—halves, minced, whole	Paprika	Pimientos—strips, minced
Marshmallows—miniature	Parsley—sprig, chopped, minced	Pineapple—chunks, tidbits, slices, rings
Melon balls	Peppers, pickled—cherry or jalapeno	Radishes—slices, roses, tulips
Nuts—chopped, whole		Raisins
Olives—green, ripe, whole, slices, chopped		Tomatoes—slices, wedges, roses

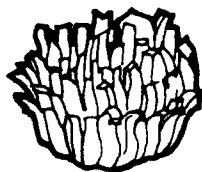
Garnishes need not require special equipment: only simple tools are needed; for example, a sharp pointed knife for paring, a serrated knife for bread and tomatoes, and a vegetable peeler for paring fruits and vegetables. Special garnishing tools, such as a V-cutter for zigzag finish or a garnishing knife for making "crinkle or waffle" cuts, may be purchased, if desired. The following are ideas and instructions for creating more garnishes from fruits and vegetables.

(CONTINUED)

GUIDELINES FOR GARNISHES

Onion Mum

1. Select a medium-sized, well-rounded white onion.
2. Peel the outer skin of the onion. Leave the root end intact but cut off any roots.
3. Using a sharp knife, start at the top of the onion and make a cut downward toward the root end. Be careful not to go all the way to the root end but stop the cut about $\frac{1}{2}$ inch from it. Make this cut deep into the center of the vegetable. Make additional cuts until you have gone completely around the onion.
4. When cutting is completed, place onion in a bowl of hot water. This will start the petals spreading and remove the onion smell.
5. Let soak for 5 minutes, then replace the hot water with ice water to allow the flower to bloom further.
6. Color the onion mum by placing food coloring in the ice water. Let soak until the desired tint is obtained.
7. Remove from ice water. Drain.



Radish Tulip

1. Cut a thin slice off the bottom and top of the radish.
2. Make 3 cuts from the top of the radish almost to the base, making 6 equal segments.
3. Place in ice water until open (overnight if possible). Remove from ice water. Drain.



Lemon or Orange Twists

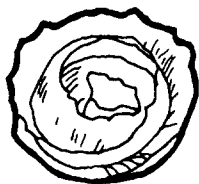
1. Cut fruit into $\frac{1}{4}$ inch horizontal slices.
2. Slit each slice and twist.



Tomato Rose

1. Use a sharp paring knife. With the stem end of the tomato down, begin peeling on the smooth end. Cut around the tomato in a spiral, making a continuous strip about $\frac{3}{4}$ inch wide. Do not be concerned if the peel breaks.
2. To form the rose, roll one end of the peel tightly to make the center. Loosely roll the remaining peel around the center.
3. Use a pick to secure rose base. Cut off excess pick. **CAUTION:** Be sure pick is firmly secured in the rose, so pick will not fall into the food during service.

NOTE: Storing tomato garnishes is not recommended.



(CONTINUED)

GUIDELINES FOR GARNISHES

Carrot Ribbons or Curls

1. Slice carrot in half lengthwise.
 2. With a peeler, peel one strip at a time from the cut surface.
 3. Drop in ice water and the strip will curl by itself.
 4. Remove from ice water. Drain.
-

Celery Fans

1. Cut celery stalk into 2 or 3 equal lengths.
 2. Make 1 $\frac{1}{4}$ inch slashes into one end or both ends of stalk.
 3. Fan one end or both ends of stalk.
 4. Drop in ice water.
 5. Remove from ice water. Drain
-

Radish Rose

1. Cut a thin slice off the bottom and top of the radish.
2. Make 4 cuts across the radish horizontally almost to the bottom and then make 4 cuts across the radish vertically.
3. Place in ice water until open (overnight if possible). Remove from ice water. Drain.

GUIDELINES FOR CONVECTION OVENS

A convection oven has a blower fan which circulates hot air throughout the oven, eliminating cold spots and promoting rapid cooking. Overall, cooking temperatures and times are shorter than in conventional ovens. The size, thickness, type of food, and amount loaded into the oven at one time will influence the cooking time.

TEMPERATURE SETTINGS: Follow the recommended temperature guide provided in the manufacturer's operating manual. If not available, follow the guidelines furnished on this card or check specific recipe for convection oven information. Note: At this time, not all AFRS oven recipes contain convection information. If food is cooked around the edges, but the center is still raw or not thoroughly cooked, or if there is much color variation (some is normal), reduce the heat by 15°F. to 25°F. and return food to the oven. If necessary, continue to reduce the heat on successive loads until the desired results are achieved. Record most successful temperature on the recipe card for future reference.

TIME SETTING: Follow the recommended times provided in the manufacturer's operating manual. Should the manual not be available, follow the guidelines furnished on this card or check the specific recipe for convection oven information. Check progress halfway through the cooking cycle since time will vary with the quantity of food loaded, the temperature, and the type of pan used. Note: meat thermometers for roasting, and visual examination of baked products are the most accurate methods of determining cooking times, both in convection ovens and in conventional ovens. Record most successful cooking time on the recipe card for future reference.

VENT DAMPER CONTROL SETTING: The vent damper control is located on or near the control panel. The damper should be kept closed for most foods of low moisture content such as roasts. If open during roasting, meats will be dry with excessive shrinkage.

The damper should be kept open when baking high moisture content foods (cakes, muffins, yeast bread, etc.). Leaving the damper closed throughout a baking cycle will produce cakes which are too moist and will not rise. A "cloud" or water droplets on the window indicate excessive moisture which should be vented out of the oven through the open damper.

FAN SPEED SETTINGS: SEE GENERAL NOTES BELOW.

INTERIOR OVEN LIGHTS: Turn on lights only when loading, unloading, or checking product. Continual burning of lights will result in short bulb life.

TIMER: The oven timer will ring only as a reminder; it has no control over the functioning of the oven. To ensure proper operation, wind the timer to the maximum setting, then turn back to the desired setting for the product.

GENERAL OPERATION:

1. Select and make the proper rack arrangement for the product to be cooked.
2. Turn or push the main power switch "ON" (gas oven--turn burner valve "ON"). Set thermostat to the recommended temperature. The thermostat signal light will light. Adjust fan speed on two-speed blower, if available (see General Notes below).
3. **PREHEAT** oven until thermostat signal light goes out indicating that the oven has reached the desired temperature. The oven should preheat to 350°F. within 10 to 15 minutes. (Note: To conserve energy, DO NOT turn on the oven until absolutely necessary--about 15 minutes before actual cooking is to start.)
4. **OPEN** oven doors and load the oven quickly to prevent excessive loss of heat. Load the oven from the top, centering the pans on the rack toward the front of the oven. Place partial loads in the center of the oven. Allow 1 to 2 inches between pans and along oven sides to permit good air circulation. Remember--overloading is the major cause of non-uniform baking and roasting.

(CONTINUED)

GUIDELINES FOR CONVECTION OVENS

5. Close oven doors and set the timer for the desired cooking time. Check the baking/roasting progress periodically until product is ready.

CLEANING AND MAINTENANCE: Refer to the manufacturer's operating manual for cleaning and maintenance instructions.

GENERAL NOTES: Most convection ovens are equipped with an electric interlock which energizes/de-energizes both the heating elements and the fan motor when the doors are closed/open. Therefore, the heating elements and fan will not operate independently and will only operate with the doors closed.

(Only one known company manufactures an oven in which the fan can be controlled independently.) Some convection ovens are equipped with single-speed fan motors while others are equipped with two-speed fan motors. This information is particularly important to note when baking cakes, muffins or meringue pies, or similar products, and when oven-frying bacon. High speed air circulation may cause damage to the food (e.g., cakes slope to one side of the pan) or blow melted fat throughout the oven. Read the manufacturer's manuals and determine exactly what features you have and then, for the above products, proceed as follows.

Two-Speed Interlocked Fan Motor: Set fan speed to "low."

Single-Speed Interlocked Fan Motor: Preheat oven 50°F. higher than the recommended cooking temperature. Load oven quickly, close doors, and reduce thermostat to recommended cooking temperature. (This action will allow the product to "set up" before the fan/heating elements come on again.)

Single-Speed Independent Fan Motor:

1. Preheat oven 25°F. above temperature specified in recipe.
2. Turn fan "OFF."
3. Reduce heat 25°F.
4. Load oven quickly and close doors.
5. Turn fan "ON" after 7 to 10 minutes and keep "ON" for remaining cooking time.

EXCEPTION: Leave fan "OFF" for bacon to prevent fat from blowing throughout the oven. READ AND UNDERSTAND THE MANUFACTURER'S MANUALS. THEY WILL MAKE YOUR JOB EASIER.

Note: Equipment is becoming more and more complex as the "state-of-the-art" progresses. It is absolutely essential that proper operating manuals be read and understood by everyone who either uses or maintains food service equipment. If you do not have the proper manuals available, proceed with extreme caution so as not to damage or misuse this equipment. Local food service equipment dealers, and/or your service's food service office should be contacted for assistance.

(CONTINUED)

GUIDELINES FOR CONVECTION OVENS

FOOD	PAN SIZE (INCHES)	RECOMMENDED NO. OF SHELVES FOR ONE LOAD	RECOMMENDED TEMPERATURE (°F.)	TIME
BREADS				
Breads, yeast	10 ¹ / ₂ by 5 by 3 ¹ / ₂	3	375	30 min
Coffee cakes	18 by 26	4	325	15 min
Muffins	12-cup muffin pan	4	350	30 min
Rolls, yeast	18 by 26	4	350	10 to 15 min
Sweet rolls	18 by 26	4	325	15 min
CAKES				
Angel food	16 by 4 ¹ / ₂ by 4 ¹ / ₈	3	300	25 to 30 min
Layer	8 or 9	4	300	25 to 35 min
Loaf	16 by 4 ¹ / ₂ by 4 ¹ / ₈	3	325	65 min
Sheet	18 by 26	4	300 to 325	25 to 35 min
DESSERTS				
Brownies	18 by 26	4	325	25 to 30 min
Cookies, bar	18 by 26	5	325	15 min
Cookies, drop	18 by 26	5	325	12 min
Cookies, sliced	18 by 26	5	350	8 to 10 min
Pies, fruit	9	4	375	25 min

REVISION**(OVER)**

FOOD	PAN SIZE (INCHES)	RECOMMENDED NO. OF SHELVES FOR ONE LOAD	RECOMMENDED TEMPERATURE (°F.)	TIME
MEATS				
Bacon, oven fried	18 by 26	5	325	15 to 20 min
Chicken, quarters or pieces	18 by 26	5	350	30 min
Fish, baked or oven fried	18 by 26	4	325	15 to 20 min
Meat loaf	18 by 26	3	300	1 hr 15 min
Roasts, boneless,				
Beef	18 by 26	3	325	1 hr 45 min
Pork	18 by 26	3	325	1½ to 2 hrs
Steak, grill (strip loin, ribeye roll, top sirloin butt)	18 by 26	7	400	See Recipe No. L.7
Turkey, boneless	18 by 26	3	325	3½ to 4 hrs
MISCELLANEOUS				
Pizza	18 by 26	4	450	15 min
Potatoes, baked	18 by 26	5	400	35 to 40 min

GUIDELINES FOR USE OF TILTING FRY PANS

The tilting fry pan is a versatile piece of equipment. Although usually described as an oversized skillet because of its large flat cooking surface, this piece of equipment can perform almost any type of cooking except deep fat frying. The tilting fry pan can be used for braising, grilling, sautéing, pan frying, simmering, steaming, boiling, warming, and holding.

The ability to tilt the pan allows for easy removal of food to the serving pans without heavy lifting. It can be used for successive cooking functions without having to move the food from one piece of equipment to another. The temperature dial is adjustable over a range of 200°F. to 400°F.

GENERAL OPERATION:

1. Turn or push main power switch to "on" position. The red light will signal that power is on.
2. Set thermostat to desired temperature. Yellow light will signal when heating unit has reached temperature. It will cycle on and off to maintain the temperature.
3. Preheat approximately 12 minutes before using as a griddle or fry pan.
4. To use as a steamer use 1 to 2 inches water with a rack for holding food above the water. Leave cover closed while steaming
5. To use as a griddle, follow directions and temperature as shown on the recipe card.
6. For sautéing or pan frying, temperature should be between 300°F. and 365°F.
7. For simmering, temperature should be 200°F.

CLEANING AND MAINTENANCE: Refer to the manufacturer's operating manual for instructions.

REVISION

GUIDELINES FOR CAPACITIES OF STEAM TABLE AND BAKING AND ROASTING PANS

PANS	DEPTH (Inches)	USABLE CAPACITY (Quarts)	USABLE CAPACITY ($\frac{1}{2}$ Cup Portions)
<u>STEAM TABLE:</u>			
12 by 20 inch (full size)	2 $\frac{1}{2}$ 4 6 8	7 13 18 $\frac{1}{2}$ 27	56 104 148 216
12 by 10 inch ($\frac{1}{2}$ size)	2 $\frac{1}{2}$ 4 6 8	3 $\frac{1}{2}$ 6 $\frac{1}{2}$ 9 12	28 52 72 96
6 by 12 inch ($\frac{1}{3}$ size)	2 $\frac{1}{2}$ 4 6	2 $\frac{1}{2}$ 4 6	20 16 24
6 by 10 inch ($\frac{1}{4}$ size)	2 $\frac{1}{2}$ 4 6	1 $\frac{2}{3}$ 2 $\frac{2}{3}$ 4	13 21 32
<u>BAKING AND ROASTING:</u>			
18 by 24 inch	4 $\frac{1}{2}$	24	192
16 by 16 inch	4	8	64

NOTE: Usable capacity: Pans are filled to about $\frac{1}{2}$ inch from the brim. If pans are to be used for carrying liquids (i.e. soups, gravies), the capacity should be reduced to half full.

GUIDELINES FOR CALORIES

Guidelines for calories employs two principles: (1) average calories based on food groups or categories rather than calorie counting of individual recipes; and (2) controlling calories by simple modifications. These modifications include serving method, smaller portion sizes, and eliminating or minimizing high calorie accompaniments such as gravy and sauces and the fat added in food preparation.

Food Categories and portion sizes follow: ¹

BREAKFAST APPETIZERS (Small fruit serving)

The sample meal pattern on the last card of this guideline information suggests one of the following fruit servings with the breakfast meal. (Items in bold face are good sources of Vitamin C). Average calories per serving = 60:

Canned fruit	1/2 cup, drained of syrup
Fruit juice, unsweetened	1/2 cup
(orange, grapefruit, grapefruit and	
orange, pineapple, apple, tomato,	
vegetable, grape	

¹Army users can refer to a listing of weight control portion sizes of AFRS recipes by recipe number in "Nutrition Education and Calorie Awareness."

Apple	1 small
Banana	1/2 small
Berries, except strawberry	1/2 cup
Berries, strawberry (unsweetened)	3/4 cup
Cranberry juice cocktail	1/2 cup
Fruit cup	1/2 cup
Grapefruit	1/2
Grapefruit sections	1/2 cup
Grapefruit and pineapple juice cocktail	1/2 cup
Grapes	12
Melon	
Cantaloupe	1/4
Honeydew	1/8
Orange	1 small
Orange and pineapple juice cocktail	1/2 cup
Pear	1 small
Plums	2 medium
Prunes	2 medium
Raisins	2 tablespoons
Tangerine	1 medium

(CONTINUED)

GUIDELINES FOR CALORIES**BREAKFAST ENTREES (Equivalent to one-ounce meat serving)**

Average calories per serving = 75-100

*Bacon, crisp	2 strips
Cheese	1 ounce slice or 1 inch cube
Egg (poached, soft cooked, hard cooked)	1
*Egg (fried, scrambled)	1
Ham or other lean meat	1 ounce slice
Peanut butter	2 tablespoons
Sausage	1 link or pattie
Corned beef hash or	1/3 cup (No. 12 scoop)
*Creamed ground beef	
*Creamed chipped beef	

*Higher in fat and higher in calories. As little fat as possible should be used in egg preparation. (Shortening compound used for pan coating can be used to reduce fat in foods requiring grill preparation.) Poached, soft cooked and hard cooked eggs are lowest in calories, because no fat is involved in their preparation. Hot sandwiches may be served at breakfast for variety. Two slices of bread or 1 English muffin, 1 ounce of meat or cheese and 1 strip bacon (250 to 300 calories), form a complete breakfast except for milk and Breakfast Appetizer servings.

REVISION

(OVER)

STARCH SERVINGS (Bread/Cereal foods, principally)

This menu category includes breads, cereal and cereal products, legumes and starchy vegetables.

Average calories per serving = 80.

A. Breads

Bagel (whole wheat or plain)	1/2
Biscuit (2" diameter)	1
Bread (white, French, Italian, whole wheat, rye, pumpernickel, raisin)	1 slice
English muffin	1/2
Roll, dinner	1 medium (1 ounce)
Roll, hamburger, hot dog, Kaiser (2 oz roll)	1/2
Tortilla/taco shell (6" diameter)	1
Cornbread	2 inch square
Dumplings	1 average
Pancakes	1/4 inch (without butter or syrup)
French toast	1 slice without butter is equivalent to one breakfast entree plus one starch serving
Coffee cake	2 inch square

(CONTINUED)

GUIDELINES FOR CALORIES**B. Cereal Products**

Baked macaroni and cheese	1/3 cup (counts as one starch serving and one fat)
Cereal, cooked	1/2 cup
Cereal, ready-to-eat, unsweetened	1 individual box or 1 ounce
Crackers, saltine, 2 inch square	6
Crackers, soda, 2 1/2 inch square	4
Grits	1/2 cup
Mexican rice	1/2 cup
Pasta, cooked (spaghetti, noodles, macaroni)	1/2 cup
Rice, steamed	1/2 cup
Rice pilaf	1/2 cup
Spanish rice	1/2 cup (counts as one starch serving and one fat)

C. Starchy Vegetables

Beans (lima, pinto, kidney, white)	1/3 cup
Corn	1/2 cup
Corn on the cob	1 medium ear
Potato, baked or boiled	1 small
*Potatoes, hashed brown, lyonnaise, cottage fried	1/2 cup
*Potato griddle cake (German)	1 cake
Sweet potato, baked	1/2 potato
Sweet potato, mashed	1/2 cup
Succotash	1/2 cup
Peas	1/2 cup
Winter squash	1/2 cup

*Fat serving should be eliminated from the meal

(CONTINUED)

GUIDELINES FOR CALORIES**FAT SERVINGS**

Fats are concentrated sources of calories. Average calories per serving = 45.

Avocado (4" diameter)	1/8
Bacon, crisp	1 strip
Bacon fat	1 teaspoon
Blue Cheese Dressing	1 tablespoon
Butter or margarine	1 pat or 1 teaspoon
Cream for coffee	2 tablespoons
Cream, sour	2 tablespoons
Cream, whipping	1 tablespoon
Cream cheese	1 tablespoon
Creamy Italian dressing	1 tablespoon
French dressing	1 tablespoon
Green Goddess dressing	1 tablespoon
Italian dressing	1 tablespoon
Low-calorie dressing	2 tablespoons
Salad dressing	1 teaspoon
Thousand Island dressing	1 tablespoon
Olives	5 small

BEVERAGES**A. Milk Servings**

Two 8-ounce glasses of milk or other dairy product equivalent are recommended daily for adults to meet calcium requirements. One Milk Serving equals one 8-ounce glass milk or equivalent.

Approximate calories per serving = 90.

Milk, skim	1 cup (1/2 pint or 8 fluid ounces)
Milk, low fat	3/4 cup (6 fluid ounces)
Milk, whole	1/2 cup (4 fluid ounces)
Buttermilk	1 cup
Yogurt, low fat (without fruit)	1 cup

B. Other Beverages

Unsweetened black coffee, unsweetened tea, sugar-free soft drinks, and bouillons range from 0 to 25 calories.

Sweetened soft drinks, milk shakes, and hot cocoa are high in sugar and calories. Milk shakes range in calories from approximately 290-450 calories depending on the ingredients used. Milk shakes contribute calcium. Dehydrated ice milk-milk shake mix (approximately 290 calories per serving) is a source of both calcium and Vitamin A—a consideration for Navy afloat patrons when milk is not available to supply these nutrients.

(CONTINUED)

GUIDELINES FOR CALORIES**APPETIZERS (lunch/dinner)**

A fruit or fruit juice or vegetable juice serving, large or small, is a good appetizer. Other possible appetizers containing about 120 calories include:

Soup

Broth-based soups (e.g., chicken noodle)	1 cup
Creamy soups	1/2 cup
Stuffed celery (filled with cheese spread or peanut butter)	2-4 sticks
Fruit cup	1/2 cup

LARGE FRUIT SERVINGS (for lunch/dinner appetizer or dessert)

Serve fresh fruits whenever possible to avoid the sugar added to most canned and frozen fruits. When only canned fruits are available, serve 1/2 cup and drain off the syrup. The following fruit servings are twice the size of the breakfast fruit servings and provide about 120 calories per serving.

Apple	1 medium
Banana	1 small or 1/2 large
Berries (except strawberry)	1 cup
Grapes	10
Melon	
Cantaloupe	1/2
Honeydew	1/4
Watermelon	2 cups (chunks)
Nectarine	1 large

Orange	1 medium
Peach	1 large
Pear	1 medium
Pineapple	1 cup (chunks)
Plums	2 large or 4 medium
Prunes	2 large or 4 medium
Raisins	1/4 cup
Tangerine	1 large
Fruit juice, unsweetened	1 cup
Tomato or vegetable juice	1 cup

MEAT SERVINGS (3 ounce lunch/dinner entree)

An ounce of cooked meat provides approximately 75 calories. Lean meats such as bottom round, roast veal, chicken without skin and fish contain approximately 55 calories per ounce. High-fat meats such as cold cuts, spareribs, sausage, corned beef and frankfurters have about 100 calories per ounce.

Serve lean meats whenever possible to reduce saturated fats, cholesterol and calories. Trim off visible fat. Remember that sauces and gravies, except tomato, seafood cocktail, and mustard, should be avoided by weight-conscious personnel. The following meats have about 225 calories per serving. For the most part, plain meat portions are 3 ounces cooked (4 ounces raw meat makes a 3-ounce portion when cooked); mixed dishes (casseroles) are 1 cup. Use slotted spoon to serve casserole dishes such as beef stew to minimize calories from the gravy.

(CONTINUED)

GUIDELINES FOR CALORIES**A. Beef****Portion Size**

Beef, ground, meatballs	3-1 $\frac{1}{3}$ ounce meatballs
Beef, ground, meat loaf	3 ounces (1 inch thick slice)
Beef, ground, pattie	1 pattie
Beef, oven roast	3 ounces
Beef, pot roast	3 ounces
Beef stew	1 cup (use slotted spoon)
Chili con carne	1 cup
Liver	4 ounces
Meat sauce (for spaghetti)	1 cup
Steak, grilled	3 ounces
Steak, Swiss	3 ounces

B. Fish/Seafood

Baked fish	4-4 $\frac{1}{2}$ ounces
Salmon cakes	1 cake
Salmon loaf	1 inch slice
Scallop creole	1 cup
Seafood newburg	1 cup
Shrimp creole	1 cup
Shrimp curry	$\frac{3}{4}$ cup
Tuna salad	$\frac{3}{4}$ cup
Baked tuna and noodles (counts as entree plus starch serving)	1 cup

C. Pork

Ham, sliced	3 ounces
Ham, chunks	1 cup
Ham, loaf	3 ounces
Pork chop	1 small
Pork chop suey	1 cup (use slotted spoon)
Pork roast	3 ounces

D. Poultry

Chicken, baked	1/4 chicken (thigh and drumstick or 1 breast piece and wing)
Chicken, BBQ, without extra sauce	1/4 chicken
Chicken (or turkey) salad	3/4 cup
Duck, roast (high in fat)	1/4 duck
Rock Cornish hen	1/2 hen
Turkey, cutlet	1 cutlet
Turkey, roast, sliced	3 ounces

E. Veal

Veal steak, breaded	1 small steak
Veal parmesan	3 ounces
Veal roast, sliced	3 ounces

Cottage cheese, 3/4 cup, is nutritionally similar to 3 ounces of meat.

(CONTINUED)

GUIDELINES FOR CALORIES**VEGETABLE SERVINGS (cooked)**

Vegetables prepared without added fats or sugar are very low in calories, about 25 per half-cup serving. The somewhat starchy vegetables, such as green peas and winter squash, contain about 70 calories per half-cup serving. Dark green and deep yellow vegetables are good sources of Vitamin A. Most dark green vegetables, if not overcooked, are also reliable sources of Vitamin C.

Asparagus	6 to 7 spears
Beans, green or wax	1/2 cup
Beets, sliced	1/2 cup
Broccoli	1 large stalk or 1/2 cup
Brussels sprouts	5 to 6 sprouts
Cabbage	1/2 cup
Carrots, sliced	1/2 cup
Cauliflower	1/2 cup
Eggplant	1/2 cup
Greens	1/2 cup
Mushrooms	1/2 cup
Okra	1/2 cup
Onions	1/2 cup
Peas, green	1/2 cup
Spinach	1/2 cup
Squash, yellow or zucchini, sliced	1/2 cup
Tomatoes, stewed	1/2 cup

SALADS (including raw vegetables)

Most salads fall into the Vegetable/Fruit Group of the Basic Four Food Groups. Salads can be low in calories, if consumption of dressings and starchy salad bar items is limited. Fruits and vegetables add fiber to the diet; raw vegetables have negligible calories. For a tossed salad of very few calories, lemon juice, vinegar and seasonings, or Zero Dressing can be substituted for regular salad dressings. The following Armed Forces Recipe Service salads provide 45 to 80 calories per 1/2 cup serving.

Carrot salad (shredded carrots with dressing, raisins or pineapple)	1/2 cup
Cole slaw	1/2 cup
Cottage cheese	1/4 cup plus 3 slices fruit as desired
Cucumber and onion salad	1/2 cup
Fruit salad	1/2 cup
Pickled beet and onion salad	1/2 cup
Pickled green bean salad	1/2 cup
Three bean salad	1/3 cup drained
Tossed salads	Greens as desired plus 1 tablespoon dressing or 2 tablespoons low-calorie dressing
Waldorf salad	1/2 cup

Relishes: celery sticks, carrot sticks, green peppers, radishes, cherry tomatoes and tomato wedges, cucumber and dill pickles have negligible calories.

(CONTINUED)

GUIDELINES FOR CALORIES**DESSERTS**

Fruit is a low fat, low calorie dessert with a greater ratio of essential vitamins and minerals to calories than many other common desserts, and is preferable for weight-conscious personnel as a dessert choice. Generally, the portions for cake, brownies, cookies and pie are one-half the Armed Forces Recipe Service portion. Approximate calories per serving is 150.

Cake, angel food, plain	4 inch square, 1 1/2 inches thick
Cake, unfrosted	2 inch square
Cobbler, any flavor	2 inch square
Cookie, 3 inch diameter	1
Cookie, bar type	2 inch square
Doughnut (not filled)	1 small or 1/2 large (1 ounce)
Gelatin dessert, plain	1/2 cup or a 3 inch square
Ice cream, sherbet, or frozen yogurt, plain	1/2 cup
Pie	1/12 of 9 inch pie (1/2 regular serving)
Pudding or custard without topping	1/2 cup

Sandwiches—Portions Recommended for Weight Control

Sandwiches provide entree variety for dieters. They replace the usual entree, starch, and fat serving of a meal. One sandwich or 1/2 submarine is a portion. (The exception is Beef Tacos. Two tacos equal the entree, starch, and fat serving.) Butter and salad dressing should be omitted from the recipe. Breads—rye, French, whole wheat, sandwich and pumpernickel that weigh about 1 ounce per slice are permitted. One-half of a 6-inch submarine roll equals 2 slices of bread. One Kaiser roll, hamburger bun, hot dog roll, or English muffin is equivalent to 2 slices of bread.

REVISION**(OVER)**

SAMPLE 1500-1700 CALORIE MEAL PLAN

Breakfast Pattern

1-Breakfast Appetizer (Fruit or Juice)

1-Breakfast Entree

2-Starch Servings

1-Fat Serving¹

1 Cup Skim or 2% Lowfat Milk, or 1/2 cup whole

Coffee or Tea-as desired (without cream or sugar)

Lunch Pattern

1-Lunch Appetizer

1-Lunch Entree

1-Starch Serving

Vegetables-(plain-as desired or 1/2 cup buttered or starchy vegetable)

1-Salad (lettuce-as desired plus 2 tbsp low calorie salad dressing or 1/2 cup fruit or other vegetable salad)

1-Fat serving¹

1 Cup Skim or 2% Lowfat Milk or 1/2 cup whole

Coffee or Tea-as desired (without cream or sugar)

(CONTINUED)

GUIDELINES FOR CALORIES

Dinner Pattern

1-Dinner Entree

1-Starch Serving

Vegetables (plain-as desired or 1/2 cup buttered or starchy vegetable)

1-Salad (lettuce-as desired plus 2 tbsp low calorie salad dressing or 1/2 cup fruit or other vegetable salad)

1-Fat Serving¹

1-Dessert Serving

Coffee or Tea-as desired (without cream or sugar)

¹Fat servings are optional. By selecting those items at the lower end of the average calorie range, i.e., fresh fruit rather than a small portion of dessert, the meal plan more nearly approximates 1500 calories. (Lettuce salads and fresh fruit are not always available in Navy general messes afloat.)

NOTE: Navy and Marine Corps food service personnel can use this meal pattern as the basis of the Healthy Choices Plan. Army and Air Force users should refer to the Fitness and Short Order Menu Pattern in Department of the Army Supply Bulletin SB 10-260, and the Sensible Limited Intake Menu (SLIM) in United States Air Force Worldwide Menu AFP 146-17, respectively.

REVISION

GUIDELINES FOR METRIC CONVERSION

The metric system is an international language of measurement. Its symbols are based on the International System of Units (SI). Of these, food service preparation will be primarily involved with the following metric base units:

Weight (mass)	gram (g) kilogram (kg)
Volume	milliliter (mL) liter (L)
Length	centimeter (cm) meter (m)
Temperature	degree Celsius (°C.)

While the U. S. metric system is voluntary and the food service industry in the United States has not converted to metric system, except for a few soft conversions, e. g., labeling, military food service dining facilities/general messes outside CONUS may experience the metric system in food and equipment support provided by the host country. The information furnished in this guideline card is primarily for these food service personnel.

Conversion of U. S. Customary to Metric Units

	<u>U. S. Customary</u>	<u>Metric</u>
Weight (or Mass)	1 ounce (oz) =	28.35 grams (g)
	1 pound (lb) =	453.6 grams (g) or .4536 kilograms
	2.2 pound (lb)	1 kilogram (kg) or 1000 grams (g)
Volume	1 tsp =	4.93 milliliters (mL)
	1 tbsp =	14.79 milliliters (mL)
	1 cup =	236.59 milliliters (mL) or .237 liters (L)
	1 pint =	.473 liters (L)
	1 quart =	.946 liters (L)
	1 gallon =	3.785 liters (L)
	1.06 quarts =	1 liter (L) or 1000 milliliters (mL)
Length	1 inch =	2.54 centimeters (cm)
	1 foot =	.3048 meters (m)
	1 yard =	30.48 centimeters (cm) or .9144 meters (m)
	1.1 yards =	1 meter (m) or 100 centimeters (cm)

(CONTINUED)

GUIDELINES FOR METRIC CONVERSION—CONTINUED**Temperature Conversions**

<u>°F.</u>	<u>°C.</u>	<u>°F.</u>	<u>°C.</u>
0	-18	212	100
26	-3	225	107
28	-2	228	109
30	-1	245	118
32	0	250	121
36	2	275	135
38	3	300	149
40	4	325	163
70	21	350	177
90	32	360	182
140	60	365	185
160	71	375	191
170	77	400	204
175	79	425	218
180	82	450	232
185	85	500	260
		550	288

SUBSTITUTION

1. Any processed American, processed, American cheese food, natural Cheddar cheese or Monterey Jack cheese may be used on a pound-for-pound basis.
 - a. Cheese, American, Processed, Pasteurized. Melts readily and blends easily; mild Cheddar flavor depending on age of cheese used in processing.
 - b. Cheese Food, American, Processed, Pasteurized. Melts more readily than processed or natural cheese and blends smoothly and quickly; slightly milder Cheddar flavor than American processed pasteurized cheese.
 - c. Cheese, Cheddar, Natural. Melts less readily than processed cheese; mild to sharp cheese flavor depending on the age of cheese.
 - d. Monterey Jack Cheese. A variety of Cheddar, melts readily; mild Cheddar flavor.
 2. Pizza-blend cheese may be used for Mozzarella cheese on a pound-for-pound basis.
 - a. Pizza-blend cheese. A blend of shredded and grated Mozzarella, provolone, Parmesan and Romano cheese. Melts easily.
 - b. Mozzarella cheese. Melts easily. Has a mild flavor.
- (NOTE: Provolone cheese may be used for Mozzarella or pizza-blend cheese. It has a more pronounced flavor ranging from mild to smoke.)

(CONTINUED)

GUIDELINES FOR CHEESES**STORAGE AND HANDLING**

1. All cheeses require special care in handling, storage, preparation and serving. The types of cheese used include: Cheddar, Swiss, processed American, American and Swiss, Mozzarella, pizza blend, cottage, cream, provolone, blue, Monterey Jack and Parmesan.
2. Cheese is perishable and must be stored under refrigeration. If kept out of refrigeration for extended periods of time, the cheese may dry out, "oil-off" or become moldy. Hard cheeses, like Swiss and Cheddar, have moderate to high keeping qualities. However, once cut, they will dry out rapidly unless properly wrapped and refrigerated. Store in either a tightly covered container or wrapped in waxed paper or transparent plastic wrap under refrigeration. Surface mold may form on any cheese. This mold can be removed from hard cheese (Cheddar, Swiss, Mozzarella, provolone, Monterey Jack) before serving or used in cooking. Trim at least $\frac{1}{2}$ inch. All high moisture content cheeses (cream, pizza blend, cottage, processed American or American and Swiss, blue and Parmesan) should be discarded if surface mold occurs.

PREPARATION AND COOKING

1. Low temperatures should be used at all times in cheese cookery. Use a low heat and stir constantly, or use a double boiler. When cheese is melted, it is cooked. High heat or prolonged cooking can toughen the protein, cause fat separation, and result in a stringy product.
2. When topping casseroles, sandwiches, and vegetables with cheese, cook the food almost completely, then add cheese; return to the oven just long enough to melt and brown the cheese.
3. Thoroughly chilled, cheese grates or shreds more easily than cheese at room temperature. (NOTE: 1 lb American or Cheddar cheese yields 1 qt shredded cheese.)

REVISION**(OVER)**

A. GENERAL INFORMATION No. 28(2)

b. Cheese, American, Processed, Dehydrated

(1) USE--Dehydrated American processed cheese may be substituted in any recipe using processed American cheese. Rehydrate cheese before adding to any recipe to eliminate any unhydrated cheese in the end product. To store dehydrated cheese after being opened, place unused portion in a tightly covered container to prevent absorption of moisture. Refrigerate if possible.

(2) PREPARATION--Add water to cheese and mix until blended. For a moist semi-solid cheese, such as for an appetizer or omelet, use 1 lb (1 qt) dehydrated cheese and 1 cup water. For a semi-fluid cheese for sauces (better volume substitute), use 1 pound (1 qt) dehydrated cheese and 2 cups water.

(3) SUBSTITUTION:

<u>Dehydrated Cheese</u>	+ <u>WARM Water Added</u>	= <u>Rehydrated Cheese OR</u>	<u>Fresh Cheese Equivalent</u>
Semi-solid 6 oz (1½ cups)	¾ cup	1⅛ cups	1 lb
3 lb (3 qt) 1-No. 10 cn	3 cups	2¼ qt	8 lb
Fluid 6 oz (1½ cups)	¾ cup	1½ cups	1 lb
3 lb (3 qt) 1-No. 10 cn	1½ qt	3 qt	8 lb

A. GENERAL INFORMATION No. 28(2)
GUIDELINES FOR CHEESES

3. Use of dehydrated cheeses. Two types of dehydrated cheeses are used. They are dehydrated American cheese and dehydrated cottage cheese.

a. Cheese, Cottage, Dehydrated

(1) USE--Dehydrated cottage cheese may be substituted in any recipe using fresh cottage cheese.

(2) PREPARATION--Measure $8\frac{1}{2}$ cups water (70°F.) into a shallow serving pan. Pour 1-No. 10 cn (1 lb 1 oz) canned dehydrated cottage cheese evenly over the water. Stir gently to wet all particles of cheese. Let stand 5 minutes, then stir gently. If more water is needed, sprinkle $\frac{1}{2}$ to 1 cup water over cheese. Chill rehydrated cheese thoroughly before serving (3 to 4 hours).

(3) SUBSTITUTION--Rehydration ratio - 1 pound dehydrated cottage cheese to 4 pounds (2 qt) water.

<u>Dehydrated Cheese</u>	<u>+</u>	<u>Water Added</u>	<u>=</u>	<u>Rehydrated Cheese</u>	<u>OR</u>	<u>Fresh Cheese Equivalent</u>
1-No. 10 cn (1 lb 1 oz ($2\frac{3}{4}$ qt))		$8\frac{1}{2}$ cups		5 lb 1 oz (3 qt)		6 lb (3 qt)
2-No. 10 cn (2 lb 2 oz ($5\frac{1}{2}$ qt))		$4\frac{1}{4}$ qt		10 lb 2 oz ($6\frac{1}{4}$ qt)		12 lb ($1\frac{1}{2}$ gal)

REVISION

(OVER)

PREPARATION AND COOKING:

1. Follow the times and temperatures prescribed in specific recipes for egg cookery.
2. Fried, poached, scrambled, and soft cooked eggs, using fresh whole eggs, may be prepared to order. For individual orders, no more than 6 eggs will be cracked at once. Use a clean bowl for each 6 eggs. Cook until desired consistency. For batch preparation of scrambled eggs, using fresh whole eggs, ensure eggs are cooked until firm (dry). No more than 3 qt (about 60 eggs) should be used per batch when scrambling eggs. DO NOT add a batch of just-cooked scrambled eggs to leftover eggs in steam table. Hold at 140°F. or higher. Frozen whole table eggs or a mixture of frozen whole table eggs and egg whites may be used. Cook according to directions on Recipe No. F-10.
3. Add other recipe ingredients gradually when folding into stiffly beaten egg whites.
4. To keep yolks of hard cooked eggs from discoloring, plunge eggs into cold running water immediately after cooking. Add ice, if necessary, to cool eggs.
5. When slicing hard cooked eggs, dip knife blade into cold water and the yolks will not crumble.

STORAGE AND LEFTOVERS:

1. Leftover shelled, uncooked eggs must be refrigerated and used within 24 hours. The total time at room temperature must not exceed 3 hours. Use leftover, shelled, uncooked eggs only in recipes requiring cooking. To keep leftover uncooked yolks from drying out, beat slightly with a fork; add 1 tablespoon cold water for each 2 yolks; cover and store in refrigerator and use within 24 hours. Use only in recipes requiring cooking.
2. Store hard cooked eggs in their shells in the refrigerator until they are served. Shelled, hard cooked eggs will darken if stored for any length of time. Use within 36 hours.

GUIDELINES FOR USING EGGS

SANITARY PRECAUTIONS:

1. Fresh clean eggs only should be accepted from supply points. **DO NOT ACCEPT DIRTY or DIRTY, CRACKED EGGS.** Fresh eggs should be refrigerated until ready to use. Under no circumstances should fresh eggs be stored unrefrigerated. Frozen whole eggs and whites, once thawed, **SHOULD NOT BE REFROZEN.**
2. Cracked whole fresh eggs should be used only in recipes requiring cooking. To avoid possible contamination, never use in salad dressings and other uncooked dishes.
3. Dehydrated egg mix and frozen bakery-type eggs should be used only in recipes requiring cooking.
4. Remember, fresh eggs are a potentially hazardous food item and must be handled carefully during storage, preparation and serving.

PREPARATION:

1. Remove from refrigeration about 30 minutes before use. This will ensure uniform cooking when eggs are fried or baked, prevent cracked shells when soft or hard cooked in their shells, and will increase the volume of beaten egg whites.
2. When eggs are to be an ingredient in a recipe, or when two or more eggs are to be mixed or beaten together, the eggs should be broken separately into a small bowl. If one egg has a bad odor, appearance or color, it can be discarded without spoiling the remaining eggs or other ingredients.

REVISION

(OVER)

GUIDELINES FOR USING HERBS

The following information is provided as a guide in developing familiarity and creativity with using herbs. Start with a small amount, taste, then add more if necessary.

<u>Herb</u>	<u>Flavor</u>	<u>Suggestions for Use</u>		
		<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
<i>Basil</i>	Mildly peppery with a trace of mint and cloves	Pork, Veal, Rabbit, Beef, Lamb	Chicken, Rock Cornish Hens	Tomatoes, Eggplant, Cucumber, Zucchini, Yellow Squash, Potatoes
		<u>Fish/Seafood</u>	<u>Other</u>	
		Halibut, Cod, Flounder/Sole Tuna	Egg and Cheese dishes, Salad Dressings, Breads	

<u>Herb</u>	<u>Flavor</u>	<u>Meat</u>	<u>Suggestions for Use</u>	
			<u>Poultry</u>	<u>Vegetables</u>
<i>Bay Leaf</i>	Very strong flavor; use with discretion	Beef, Lamb, Rabbit, Pork, Duck, Veal	Chicken, Rock Cornish Hens	Rutabagas
		<u>Fish/Seafood</u>	<u>Other</u>	
		Halibut, Cod, Flounder/Sole, Haddock, Trout, Tuna, Lingcod, Perch, Catfish, Salmon, Shrimp	Stews, Casseroles, Soups, Sauces	

(CONTINUED)

GUIDELINES FOR USING HERBS

<u>Herb</u>	<u>Flavor</u>	<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
<i>Dillweed</i>	Slightly sweet with sharp tang	Pork, Veal	Chicken, Rock Cornish Hens	Potatoes, Tomatoes, Cucumbers, Green Beans, Carrots, Yellow Squash
		<u>Fish/Seafood</u>	<u>Other</u>	
		Halibut, Cod, Flounder/Sole, Haddock, Trout, Lingcod, Perch, Catfish, Salmon, Tuna, Crab, Scallops	Eggs, Breads, Sour Cream, Sauces, Vinegars	

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<u>Herb</u>	<u>Flavor</u>	<u>Meat</u>	<u>Suggestions for Use</u>		<u>Vegetables</u>
			<u>Poultry</u>	<u>Other</u>	
<i>Garlic/ Garlic Powder</i>	Pungent	Beef, Lamb, Pork, Rabbit	Chicken, Rock Cornish Hens, Turkey	Casseroles, Salads, Vinegars, Sauces	Beets, Eggplant, Tomatoes, Broccoli, Cabbage, Green Beans
		<u>Fish/Seafood</u> Lingcod, Perch, Catfish, Tuna, Shrimp			

(CONTINUED)

GUIDELINES FOR USING HERBS

<u>Herb</u>	<u>Flavor</u>	<u>Suggestions for Use</u>		
		<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
<i>Marjoram</i>	Slightly sweet with sharp tang	Beef, Lamb, Pork, Rabbit	Chicken, Rock Cornish Hens	Eggplant, Tomatoes, Zucchini, Winter Squash, Mushrooms, Peas, Beans
		<u>Fish/Seafood</u>	<u>Other</u>	
		Tuna	Stews, Egg dishes, Stuffings, Breads, Vinegars	

<u>Herb</u>	<u>Flavor</u>	<u>Meat</u>	<u>Suggestions for Use</u>		<u>Vegetables</u>
<u>Poultry</u>					
<i>Oregano</i>	Pungent, peppery, slightly bitter	Beef, Lamb, Pork	Chicken, Rock Cornish Hens, Turkey	Eggplant, Tomatoes, Broccoli, Zucchini, Mushrooms, Beans	
<u>Fish/Seafood</u>		<u>Other</u>			
Lingcod, Perch, Catfish, Tuna, Shrimp		Pizza, Stuffings, Sauces			

(CONTINUED)

GUIDELINES FOR USING HERBS

<u>Herb</u>	<u>Flavor</u>	<u>Suggestions for Use</u>		
		<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
<i>Parsley</i>	Gentle flavor, distinctly mild	Beef, Veal Cornish Hens	Chicken, Rock Potatoes, Parsnips	Cauliflower, Peas, Tomatoes
		<u>Fish/Seafood</u>	<u>Other</u>	
		Halibut, Cod, Flounder/Sole, Haddock, Trout, Clams, Crab, Shrimp	Soups, Stews, Sauces, Stuffings, Pasta, Breads, Eggs	

REVISION

(OVER)

<u>Herb</u>	<u>Flavor</u>	<u>Suggestions for Use</u>		
		<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
<i>Rosemary</i>	Strong and aromatic - use sparingly	Beef, Lamb, Pork, Rabbit, Duck	Chicken, Rock Cornish Hens	Cauliflower, Tomatoes Zucchini Squash, Brussels sprouts
		<u>Fish/Seafood</u>	<u>Other</u>	
		Tuna	Marinades, Sauces for Fish	

(CONTINUED)

GUIDELINES FOR USING HERBS

<u>Herb</u>	<u>Flavor</u>	<u>Suggestions for Use</u>		
		<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
Savory	Light, sweet with peppery tang	Pork, Lamb, Beef	Chicken, Rock Cornish Hens	Cucumbers, Green Beans, Potatoes, Tomatoes
		<u>Fish/Seafood</u>	<u>Other</u>	
		Trout	Bean dishes, Stuffings, Casseroles, Vinegar, Vegetable juices, Meat Loaf, Breads, Tossed Salads	

REVISION

(OVER)

<u>Herb</u>	<u>Flavor</u>	<u>Meat</u>	<u>Suggestions for Use</u>	
			<u>Poultry</u>	<u>Vegetables</u>
<i>Tarragon</i>	Licorice-like (anise)	Veal, Pork, Beef	Chicken, Rock Cornish Hens	Cucumbers, Carrots, Green Beans, Tomatoes, Mushrooms
		<u>Fish/Seafood</u>	<u>Other</u>	
		Halibut, Cod, Flounder/Sole, Haddock, Halibut, Trout, Tuna, Crab, Lobster, Scallops	Eggs, Sauces, Salads, Marinades, Vinegars	

(CONTINUED)

GUIDELINES FOR USING HERBS

<u>Herb</u>	<u>Flavor</u>	<u>Suggestions for Use</u>		
		<u>Meat</u>	<u>Poultry</u>	<u>Vegetables</u>
<i>Thyme</i>	Pleasant, fresh taste with faint clove after-taste	Beef, Lamb, Pork, Duck, Rabbit	Chicken, Rock Cornish Hens	Parsnips, Tomatoes, Cabbage, Green Beans, Winter Squash, Pickled Beets
		<u>Fish/Seafood</u>	<u>Other</u>	
		Tuna, Oysters, Shrimp	Stuffings, Creole and Gumbo Dishes, Stews, Eggs	

REVISION

GUIDELINES FOR PREPARING FRESH VEGETABLES AND FRUITS

General Guidelines

Keep fresh fruits and vegetables cold at all times except bananas. DO NOT remove from shipping containers unless needed within 24 hours. When vegetables, except onions, and fruits are removed from shipping containers, sort, trim, wash, drain well and refrigerate in covered containers. Wash all fruits and vegetables except alfalfa sprouts, bean sprouts, mushrooms, and bananas. Soak vegetables, such as cauliflower, broccoli, cabbage and Brussels sprouts, 30 minutes in cold water containing a tablespoon of salt per gallon to loosen soil and remove insects. DO NOT leave greens in water for more than 6 to 7 minutes. DO NOT soak cherries, grapes or strawberries.

To cut vegetables and fruits, use a stainless steel knife to prevent discoloration. Pare or peel and cut as recipe directs. Refrigerate well-drained vegetables in covered containers at least 1 hour to crisp before individual salad make-up or placing on salad bars. If greens are to be held, drain excess water from pans.

Specific Guidelines:

LEAFY VEGETABLES:

1. When sorting and discarding damaged salad greens, keep as many outer salad green leaves as possible to make the salad attractive and provide nutrients/vitamins.
2. Core, stem and separate salad greens before washing. Wash greens by lifting up and down in an excessive amount of water. Soak wilted greens in ice water 10 minutes or only until crisp. Drain thoroughly to prevent watery salad. Place heads of lettuce (core side down) to drain.
 - a. Iceberg lettuce - Remove core except when shredded or used for wedges. Hit each head (core side directly down) on counter; lift or twist out core; or cut out.
 - b. Big Boston, green leaf and red leaf lettuce - Remove base core and separate leaves.
 - c. Cabbage and Chinese cabbage - Trim wilted outer leaves; cut in quarters and remove hard core (leave enough of the core to hold the head together).

REVISION

(OVER)

- d. Romaine, endive and escarole - Remove base core and separate leaves.
- e. Collards, kale, parsley and spinach - Remove tough stems.
3. Tear or cut salad greens into bite-size pieces or as otherwise directed in recipe. Remove outer iceberg lettuce leaves for use as lettuce cups with individual salads.

NON-LEAFY VEGETABLES:

1. Wash and scrub thoroughly to remove dirt.
2. Use a vegetable brush for cleaning celery, carrots and potatoes when they are not peeled.
3. Trim bruised and blemished parts.
4. Cut tomatoes in slices or wedges shortly before using.
5. Radishes, carrots, celery and cucumbers may be crisped in ice water. Drain before using.
 - Alfalfa sprouts - DO NOT wash.
 - Asparagus - Trim woody ends.
 - Beans, green - Trim ends and remove strings.
 - Bean sprouts - DO NOT wash.
 - Broccoli - Cut off tough ends and remove tough outer leaves, separate into flowerets.
 - Brussels sprouts - Trim ends and yellowed or coarse outer leaves.
 - Carrots - Trim tops, pare.
 - Cauliflower - Trim end and separate into flowerets.
 - Celery - Separate branches from stalk, trim heavy strings or midribs; for celery hearts, DO NOT trim leaves.
 - Corn - Remove corn husks and silk; keep cold; DO NOT soak.
 - Cucumbers - Pare.
 - Eggplant - Pare if recipe indicates.
 - Garlic - Separate cloves from bud; trim clove end, peel off outer skin of clove.
 - Mushrooms - Trim stem end. DO NOT wash. Brush with soft brush to remove dirt.

(CONTINUED)

GUIDELINES FOR PREPARING FRESH VEGETABLES AND FRUITS

Onions, dry - Trim ends, peel off outer skin.

Onions, green - Separate bunches. Remove wilted tops, outer layer of bulb, and root end.

Parsnips - Trim tops, pare.

Peas, snow - Trim stem end.

Peppers, sweet, green - Remove stems and seeds.

Potatoes, red - Best used well scrubbed and unpared.

Potatoes, sweet - Remove sprouts, best cooked in skins and then pared.

Potatoes, white - Remove sprouts, for baking scrub well, for others pare.

Radishes - Trim tops, pare.

Rutabagas - Trim tops, pare.

Squash, fall or winter type - Cut as recipe indicates, remove seeds.

Squash, summer type - Trim ends.

Tomatoes - Cut out stem end.

Tomatoes, cherry - Remove stems.

Turnips - Trim tops, pare.

FRUITS:

1. Wash thoroughly to remove dirt.

2. Trim bruised and blemished parts.

Apples - Cut or pare if recipe indicates; core.

Apricots - Remove pit.

Avocados - Pare and remove seed.

Bananas - Peel. DO NOT wash.

Cherries, sweet - Remove stems and pits. DO NOT soak.

Cranberries - Sort to remove damaged berries and stems.

Grapefruit - Pare and section or cut as recipe indicates.

Grapes - DO NOT soak. Remove stems.

Kiwifruit - Pare. Cut as recipe indicates.

Lemons - Grate rind. Cut in half to squeeze juice or cut as recipe indicates.

Limes - Grate rind. Cut in half to squeeze juice or cut as recipe indicates.

Mangos - Pare and remove seed. Cut as recipe indicates.

Melons - Cut in half to remove seeds. Pare if recipe indicates. Cut as recipe indicates.

Nectarines - Remove pit.

Oranges - Peel and section or cut as recipe indicates.

Papaya - Pare and remove seeds. Cut as recipe indicates.

Peaches - Pare if recipe indicates. Remove pit.

Pears - Pare if recipe indicates; core.

Pineapple - Pare, remove eyes and top tuft, remove core if tough.

Plums - Remove pit.

Strawberries - Remove caps and stems. DO NOT soak.

Tangelos - Peel and section or cut as recipe indicates.

Tangerines - Peel and section or cut as recipe indicates.

Watermelons - Pare and seed if recipe indicates. Cut as recipe indicates.

HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP)

HACCP System: A food safety system that identifies hazards and develops control points throughout the receiving, storage, preparation, service and holding of food. This system is designed to prevent foodborne illness.

- **Critical Control Point (CCP):** A point in a specific food service process where loss of control may result in an unacceptable health risk. Implementing a control measure at this point may eliminate or prevent the food safety hazard.
- **Critical Limits:** Elements such as time and temperature that must be adhered to in order to keep food safe. The Temperature Danger Zone is defined by the Food and Drug Administration's 1997 Food Code as 41° F. to 140° F.
- **Foodborne Illness:** An illness transmitted to humans through food. Any food may cause a foodborne illness, however *potentially hazardous foods* are responsible for most foodborne illnesses. Symptoms may include abdominal pain/cramps, nausea and vomiting.
- **Potentially Hazardous Food:** A food that is used as an ingredient in recipes or served alone that is capable of supporting the growth of organisms responsible for foodborne illness. Typical foods include high protein foods such as meat, fish, poultry, eggs and dairy products.

Beginning with the 1999 Armed Forces Recipe Service update, each recipe card (when applicable) will include HACCP guidelines for the preparation of the recipe. Guidelines for receiving, storage and reheating should be developed by each food service operation to complement the recipes and complete your facility's HACCP plan. Recommended heating and cooling temperatures are defined in the Food and Drug Administration's 1997 Food Code.

COOKING TEMPERATURES	
<i>These temperatures represent the minimum required temperature. The time represents the minimum amount of time the temperature must be maintained.</i>	
Eggs, Raw shell eggs	155° F for 15 seconds
Eggs, Egg products, pasteurized	145° F for 15 seconds
Poultry	165° F for 15 seconds
Pork	155° F for 15 seconds
Whole Beef Roasts and Corned Beef Roasts	145° F for 3 minutes
Fish	145° F for 15 seconds
Stuffed meat, fish, poultry or pasta, OR stuffings containing meat, fish or poultry	165° F for 15 seconds
Meat or fish that has been reduced in size by methods such as chopping (i.e., beef cubes), grinding (i.e., ground beef, sausage), restructuring (i.e., formed roast beef, gyro meat), or a mixture of two or more meats (i.e., sausage made from two or more meats)	155° F for 15 seconds
SERVING AND HOLDING (hot foods)	140° F
COOLING <i>FDA recommends a cooled product temperature of 41° F. In order to achieve a cooled internal product temperature of 41° F., the temperature of the refrigerator must be lower than 41° F. Ideally, foods should be kept at the coldest temperature possible to maintain safety and quality.</i>	From 140° F. to 70° F. within 2 hours.
	From 70° F. to 41° F. within 4 hours.